



CITY OF CARLISLE.

REPORT

ON THE

Sanitary Condition of the City of Carlisle

FOR THE YEAR 1927

BY

JOSEPH BEARD,

F.R.S. (Edin.), F.R.C.S. (Edin.),
L.R.C.P. (Lond.), D.P.H. (Cantab.), etc.,
(Of Gray's Inn, Barrister-at-Law).

Medical Officer of Health,
School Medical Officer.
Chief Tuberculosis Officer, &c.

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THOMAS & SON, PRINTERS, 11 ENGLISH STREET.



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PUBLIC HEALTH STAFF.

This list includes all officers who are employed in work connected with the public health, whether under the Health, Maternity and Child Welfare, or the Education Committees:—

Medical Officer of Health, School Medical Officer, Chief Tuberculosis Officer, &c., &c.	JOSEPH BEARD, F.R.C.S., L.R.C.P., D.P.H., &c., &c.
Assistant Medical Officer of Health, Tuberculosis Officer, and Assistant School Medical Officer	ALLAN SEMPLE, M.B., Ch. B., D.P.H.
Assistant School Medical Officer and Assistant Medical Officer (M. & C. W.)	Miss E. E. BOURNE, M.B., Ch.M., D.P.H.
Assistant Medical Officer (V.D.) (part-time)	ALEX. C. B. McMURTRIE, M.D., F.R.C.S., D.P.H.
Dental Surgeon (part-time)	WILLIAM TAYLOR, L.D.S.
Veterinary Inspector (part-time)	R. CRAIG ROBINSON, M.R.C.V.S.
Chief Sanitary Inspector, and Inspector under Sale of Food and Drugs Acts and Shops Acts	* C. W. HILL
Assistant Sanitary Inspectors	††* W. HANSON * E. S. BROADHEAD
Health Visitors	Misses H. M. HILL, J. G. SMITH, C. STORDY
Nurse in charge of School Clinic and Tuberculosis Dispensary	Miss M. E. GLOYNE
School Nurses	Misses J. H. BRADEN, G. HUNTER, M. L. ROGERS.
Matron of Maternity Hospital	Miss M. C. WALKER
Clerks	G. E. BARROW, R. F. THOBURN, L. OATES, Misses L. HIND and M. PURDAM
Disinfectors	H. PORTER
Superintendent of Public Slaughter-houses	*†R. T. BLAYLOCK
Public Analyst (part-time)	CYRIL J. H. STOCK, B.Sc., F.I.C. DARLINGTON
Bacteriologists (part-time)	THE PUBLIC HEALTH LABORATORY, MANCHESTER (Prof. H. B. MAITLAND) AND THE CLINICAL RESEARCH ASSOCIATION, LONDON

* Sanitary Inspectors' Certificate, R.S.I.

† Sanitary Inspectors' Certificate, S.I.A.

‡ Meat Inspectors' Certificate, R.S.I.



To the Chairman and Members of the Health Committee.

Ladies and Gentlemen,

I have the honour to submit the Annual Report on the Health of the City for the year 1927.

The Report has been prepared as far as practicable in accordance with the requirements of Circular 834 of the Ministry of Health, of the 15th December, 1927, consideration having been given to the recording of such particulars as may be required for future reference.

The Report calls for little comment, and the sanitary condition of the City generally may be said to be good.

I am,

Ladies and Gentlemen,

Your obedient Servant,

JOSEPH BEARD,

Medical Officer of Health.

Public Health Department,

19 Fisher Street,

Carlisle,

May, 1928.

STATISTICS AND SOCIAL CONDITIONS.

General Statistics.

Area (acres)	...	...	...	4,488
Population (Census, 1921)	...	...	...	53,200
Population (1927), Estimate of Registrar-General				56,620
Number of Inhabited Houses (Census, 1921)	...			11,316
Number of Families (Census, 1921)	...	...		11,742
Rateable Value	...	...	...	£349,665
Sum represented by a Penny Rate	...	...	...	£1,253

Extracts from Vital Statistics of the Year.

Births—	Total.	M.	F.	
Legitimate	974	489	485	
Illegitimate	63	26	37	
				Birth-rate 18.3
Deaths	699	336	363	
				Death-rate 12.3

Number of women dying in, or in consequence
of, childbirth—

From Sepsis	...	...	...	3
From other causes	...	...	...	None

Deaths of Infants under one year of age per
1,000 births—

Legitimate	...	...	69.8
Illegitimate	...	...	47.6
			— Total 68.4

Deaths from Measles (all ages)	...	...	1
,, Whooping Cough (all ages)	...	...	None
,, Diarrhoea (under 2 years of age)	...	...	9

Population.

An estimate of the population at mid-year, 1927, supplied to me by the Registrar-General, is 56,620, which figure has been used in making the various calculations in this report.

Births.

The number of births registered during the year was 1,037, a decrease of 122 on the figure for the previous year, and the birth-rate is 18.3 per 1,000 of the population, or a decrease of 2.2 on the figure for 1926.

The birth-rate for the whole of England and Wales during 1927 was 16.7 per 1,000. The rate for the 107 great towns, to which classification Carlisle belongs, was 17.1 per 1,000, and for the 155 smaller towns of England and Wales 16.4 per 1,000.

Year.	Number of Births Registered.			Per 1,000 of the population.
	Males.	Females.	Total.	
1923	589	592	1181	21.8
1924	548	568	1116	20.3
1925	530	515	1045	18.8
1926	604	555	1159	20.5
1927	515	522	1037	18.3

Table showing details of the Births in the several Wards, 1927.

Quarter Ended	Stanwix and Etterby	Rickergate	Aglionby	Greystone	St. Nicholas	Currock	Denton Holme	S. Cuthbert's	Caldegate	Newtown & Belle Vue	Totals for City
March 31	13	31	20	24	23	39	19	31	37	28	265
June 30	17	24	23	21	28	44	46	34	40	25	302
September 30 ...	6	28	18	14	27	46	22	22	30	20	233
December 31	8	28	13	19	20	36	33	24	32	24	237
Totals	44	111	74	78	98	165	120	111	139	97	1037

Illegitimate Births.

The number of illegitimate births registered was 63, or 60.7 per 1,000 of the total births. This shows a decrease of 6 illegitimate births upon the figure for 1926.

In 9 instances, or 14.2 per cent. of the total illegitimate births, the mother was not a resident of the City.

The distribution of the illegitimate births among the several wards was as follows:—

	Stanwix and Etterby	Rickergate	Aglionby	Greystone	St. Nicholas	Currock	Denton Holme	S. Cuthbert's	Caldegate	Newtown & Belle Vue	Totals for City
Males	2	5	...	2	4	6	2	...			26
Females	1	5	5	2	6	5	3	2	3	5	37
Totals	3	10	5	4	10	11	5	2	6	7	63

Deaths.

The total number of deaths registered was 802, as compared with 821 in 1926. 19 deaths occurred of persons belonging to the City in Institutions and other places away from Carlisle, while the deaths of 122 persons

not belonging to the City occurred in public institutions and other places within the City. Excluding the latter figure, and adding the deaths of Carlisle residents which occurred in other districts, a nett figure of 699 remains, which is equal to a nett death-rate of 12.3 per 1,000 of the estimated population at all ages, against 12.9 per 1,000 in 1926.

The corrected death-rate for the City, which is obtained by multiplying the above nett death-rate of 12.3 per 1,000 by the factor supplied by the Registrar-General, viz., .947, is 11.6 per 1,000 of the estimated population living at all ages.

The death-rate for the whole of England and Wales during 1927 was 12.3 per 1,000. The rate for the 107 great towns, to which classification Carlisle belongs, was 12.2 per 1,000, and for the 155 smaller towns of England and Wales, 11.3 per 1,000.

Table showing details of Deaths of Residents in the various Wards, 1927.

QUARTER ENDED.	STANWIX AND ETTERBY.	RICKERGATE.	AQUIONBY.	GREYSTONE.	ST. NICHOLAS.	CURROCK.	DENTON HOLME.	ST. CUTHBERT'S.	CALDEWEGATE.	NEWTOWN AND BELLE VUE.	TOTALS FOR CITY.
March 31	12	23	23	24	14	26	22	24	21	10	199
June 30.....	6	17	23	21	18	18	14	18	19	16	170
September 30 ...	12	14	13	13	14	17	15	13	14	13	138
December 31.. ...	17	20	20	25	16	17	20	20	27	10	192
Totals..	47	74	79	83	62	78	71	75	81	49	699

Table showing the number of Deaths at all Ages and at several age periods, 1927.

	All Ages.	Under 1 Year.	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and up-wards.
No. of Deaths at all ages and at several age periods	699	71	34	14	36	250	294

The following Table shows the diseases causing the largest number of Deaths during 1927, and a comparison with those of 1926, &c.:—

DISEASE.	1926	1927.	Increase or Decrease	Average No. of Deaths for past 10 yrs.
Pulmonary Tuberculosis & Phthisis	48	51	+ 3	46
Other forms of Tuberculosis ...	15	11	— 4	15
Pneumonia	44	60	+ 16	51
Other Diseases of Respiratory System	48	66	+ 18	60
Measles	18	1	— 17	10
Influenza	7	14	+ 7	32
Whooping Cough	11	..	...	9
Diphtheria, Membranous Croup ..	10	2	— 8	5
Disease of Heart and Blood Vessels	157	158	+ 1	159
Rheumatic Fever, Chronic Rheumatism, Rheumatoid Arthritis ..	3	2	— 1	7
Cancer and Malignant Disease ...	67	79	+ 12	68
Diseases of Digestive System other than Diarrhœa and Enteritis ...	26	21	— 5	25
Diseases of Genito-Urinary System	32	25	— 7	29
Diseases of Nervous System ...	73	59	— 14	56
Prematurity and Injury at Birth, &c.	40	27	— 13	42
Accidents due to Negligence	24	26	+ 2	19
Diarrhœa and Enteritis ...	21	13	— 8	20

+ Shows an increase in the number of deaths.

— Shows a decrease in the number of deaths

The following Table sets out the Cause and the Ages at Death of 699 persons belonging to the City:—

CAUSE OF DEATH.		NETT DEATHS AT THE SUBJOINED AGES OF "RESIDENTS" WHETHER OCCURRING WITHIN OR WITHOUT THE DISTRICT.									TOTAL DEATHS WHETHER OF "RESIDENTS" OR "NON-RESIDENTS" IN INSTITUTIONS IN THE DISTRICT.
		All Ages.	Under 1 year.	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and up- wards	
1	2	3	4	5	6	7	8	9	10	11	
All Causes { Certified { Uncertified	671 28	69 2	20 ..	14 ..	14 ..	36 ..	76 2	161 11	281 13	290 1	
Enteric Fever .. .. .	..	..	..	..	..	..	..	..	..	..
Smallpox .. .. .	..	..	..	..	..	..	..	..	..	..
Measles	1	1	..	..	..	..	..	..	..	..
Scarlet Fever .. .. .	..	..	..	..	..	..	..	..	..	..
Whooping Cough .. .. .	..	..	..	..	..	..	..	..	..	..
Diphtheria and Croup	2	..	..	2	..	..	..	..	..	2
Influenza	14	..	1	..	..	1	2	4	6	..
Dysentery .. .. .	..	..	..	..	..	..	..	..	..	..
Erysipelas	3	..	..	..	..	..	..	2	1	5
Phthisis (Pulmonary Tuberculosis)	51	..	1	..	..	17	19	11	3	6
Tuberculous Meningitis	3	1	1	..	1	..	..	..	..	3
Other Tuberculous Diseases	8	..	..	1	2	1	2	1	1	2
Cancer, Malignant Disease	79	..	..	..	1	..	4	28	46	24
Rheumatic Fever	2	..	..	..	..	..	..	..	1	..
Meningitis	3	1	..	1	..	1	..	..	1	6
Organic Heart Disease	94	..	..	1	1	..	7	22	63	17
Bronchitis	57	10	..	1	..	2	4	12	23	12	
Pneumonia (all forms)	60	15	11	4	2	4	1	13	9	12	
Other Diseases of Respiratory Organs	9	..	..	1	..	..	1	4	3	..
Diarrhoea and Enteritis	13	8	1	..	..	..	2	1	1	6
Appendicitis and Typhilitis	2	..	..	1	..	1	..	..	..	11
Cirrhosis of Liver .. .. .	..	..	..	..	..	..	..	..	..	..
Alcoholism .. .. .	..	..	..	..	..	..	..	..	..	..
Nephritis and Bright's Disease	20	..	..	..	..	..	2	9	9	10
Puerperal Fever	3	..	..	..	..	..	3	..	..	2
Other Accidents and Diseases of Preg- nancy and Parturition .. .. .	..	..	..	..	..	..	..	..	..	..
Congenital Debility & Malformation, including Premature Birth	27	27	..	..	..	..	..	..	..	10
Violent Deaths, excluding Suicide	26	1	1	2	4	3	7	4	4	33	
Suicide	2	..	..	..	..	..	1	1	..	1
Other Defined Diseases	217	7	3	..	2	6	23	58	118	124	
Diseases ill-defined or unknown	3	..	1	..	..	..	..	1	1	..
Totals		699	71	20	14	14	36	78	172	294	291
Sub- Entries included in above figures	Cerebro-spinal Meningitis	1	..	..	..	1	..	..	..	..
	Polionmyelitis .. .. .	..	..	..	..	..	..	..	..	..
	Typhus Fever .. .. .	..	..	..	..	..	..	..	..	..
	Lobar Pneumonia	14	2	1	1	2	3	..	3	2	3
	Pneumonia not defined	9	1	3	1	2	2	..

The following Table shows the Vital Statistics for the whole City during 1927 and previous years:—

YEAR.	Registrar-General's Estimate of Population to Middle of each Year	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NETT DEATHS BELONGING TO THE DISTRICT.			
		Uncorrected Number.	Nett.		Number.	Rate.	of Non-residents registered in the District.	of Residents not registered in the District.	Under 1 Year of age		AT ALL AGES.	
			Number.	Rate.					Number.	Rate per 1,000 Nett Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1918	60,188 53,717	1033	1037	17.2	921	17.1	120	49	131	126.8	850	15.8
1919	57,500 55,198	1066	1078	18.7	778	14.1	112	54	115	107.9	720	13.6
1920	57,697 57,397	1425	1417	24.7	785	13.7	117	37	114	80.0	705	12.3
1921	53,200	1310	1298	24.6	818	15.3	85	21	138	105.3	754	14.1
1922	53,490	1267	1267	23.6	864	16.1	101	21	103	81.2	784	14.6
1923	54,010	1181	1171	21.8	797	14.7	91	16	98	82.9	732	13.5
1924	54,910	1116	1123	20.3	849	15.4	103	17	106	94.9	763	13.8
1925	* 55,360 + 55,160	1045	1030	18.8	848	15.3	122	22	82	78.4	748	13.5
1926	* 56,320 + 56,140	1159	1163	20.5	821	14.6	110	18	95	81.9	729	12.9
1927	56,620	1037	983	18.3	802	14.1	122	19	71	68.4	699	12.3

* For Birth-rate.

† For Death-rate.

The following Public and other Institutions are within the City:—

The Union Workhouse and its Infirmary.
 The Cumberland Infirmary.
 Carlisle Non-Provident Dispensary.
 The Crozier Lodge Isolation Hospital.
 Strathclyde House (Home for Incurables).
 St. Joseph's Home (aged and infirm persons).
 Corporation Dispensary and School Clinic.
 Corporation Maternity Hospital and Clinics.

Birth-rate, Death-rate, and Infantile Mortality in Carlisle since 1891.

Year.	No. of Births.	Birth-rate.	No. of Deaths.	Gross Death-rate.	Infantile Mortality.	Average Five Years.		
						Birth-rate.	Death-rate.	Infantile Mortality.
1891	1207	30·8	789	20·1	137	31·8	20·1	142·6
1892	1213	30·5	805	20·2	123			
1893	1389	34·5	868	21·6	178			
1894	1315	32·0	780	19·2	133			
1895	1311	31·4	794	19·4	142			
1896	1246	29·6	753	18·2	137	29·9	19·5	146·6
1897	1324	30·8	811	19·4	134			
1898	1311	30·0	935	22·2	183			
1899	1300	29·4	818	19·2	145			
1900	1354	30·1	807	18·8	134			
1901	1246	27·3	810	17·8	129	26·7	17·9	131·0
1902	1245	27·0	856	18·5	117			
1903	1322	28·4	813	17·4	118			
1904	1278	26·7	933	19·7	152			
1905	1168	24·3	783	16·3	139			
1906	1227	25·3	811	16·7	132	23·6	15·1	127·5
1907	1178	23·8	848	17·1	143			
1908	1223	24·4	713	14·2	129			
1909	1149	22·6	735	14·5	123·6			
1910	1145	22·2	683	13·2	110·0			
1911	1109	23·8	776	16·7	145·0	23·2	17·1	128·2
1912	1142	24·6	813	17·5	102·4			
1913	1164	22·1	821	15·6	127·1			
1914	1209	23·0	848	16·1	122·4			
1915	1192	22·6	1027	19·5	144·3			
1916	1103	20·3	850	17·0	101·5	19·9	15·5	104·5
1917	1117	18·8	826	15·5	106·5			
1918	1033	17·1	921	17·1	126·8			
1919	1066	18·5	778	14·1	107·9			
1920	1425	24·7	785	13·7	80			
1921	1310	24·6	818	15·3	105·3	21·8	15·3	88·5
1922	1267	23·6	864	16·1	81·2			
1923	1181	21·8	797	14·7	82·9			
1924	1116	20·3	849	15·4	95·0			
1925	1045	18·8	848	15·1	78·4			
1926	1159	20·5	821	14·6	81·9	19·9	14·7	81·3
1927	1037	18·3	802	14·1	68·4			

The following figures relate to the deaths of persons not normally resident in the district which occurred within the City:—

Cumberland Infirmary	...	...	76
Private Nursing Homes	...	...	24
Private Houses	...	...	6
Fusehill Hospital	...	...	12
Isolation Hospital	...	...	3
General Post Office	...	...	1

Inquests.

During the year the City Coroner held 49 inquests. Of this number, 32 related to deaths of persons who resided within the City, and 17 to persons who resided in other districts, but who died within the City. 12 related to children under five years of age, 5 of whom were under one year.

Mortuary.

6 bodies were removed to the Public Mortuary, a post-mortem examination being made in each instance.

Uncertified Deaths.

28 deaths were registered of persons belonging to the City in which no certificate was given by a medical man, and in which no inquest was held.

During 1926, 17 such deaths were registered.

Cancer.

The number of deaths registered as due to cancer was 79, as against 67 in 1926, the rate of mortality from this disease being 1.3 per 1,000 of the population.

This figure includes all deaths from causes coming within the general term cancer.

Table of Deaths from Cancer, 1918-1927.

Age.	Numbers.									
	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927
1 to 5 years ...	...	...	...	...	...	..	..	...	...	...
5 to 15 years ...	1	...	1	...	...	...	...	...	...	1
15 to 25 years ...	1	..	...	1	1	...	1	...	...	...
25 to 35 years ...	1	2	1	2	...	...	1	..	2	2
35 to 45 years ...	5	...	5	2	4	2	5	4	3	2
45 to 55 years ...	13	9	15	5	12	13	10	23	6	10
55 to 65 years ...	21	19	12	20	22	21	20	26	26	18
65 to 75 years ...	17	15	17	19	15	26	25	21	21	31
75 & upwards ...	7	4	11	4	14	16	10	10	9	15
Totals ...	66	49	62	53	68	78	72	84	67	79

GENERAL PROVISION OF HEALTH SERVICES.

Hospitals provided or subsidised by the Local Authority.

A (1) *Fever*. General infectious diseases are sent to Crozier Lodge Isolation Hospital, Carlisle, 50 beds.

(2) *Smallpox*. The Corporation has provided a hospital for the isolation of smallpox a few miles out of the City, containing 12 beds.

B (1) *Tuberculosis*. The Corporation has a call upon 20 beds in the Blencathra Sanatorium, Threlkeld, Cumberland, in accordance with the agreement made between the Local Government Board, the Sanatorium Committee, and the Corporation.

(2) *Maternity*. A hospital has been provided by the Corporation at 3 George Street, Carlisle, containing 13 beds and a like number of infants' cots.

(3) *Children*. There is a children's ward at the Cumberland Infirmary which provides for local requirements.

(4) *Others*. None.

Institutional Treatment for Unmarried Mothers.

Illegitimate Infants, and Homeless Children.

In addition to the Fusehill Institution, accommodation is provided for the above classes by the North Cumberland and Carlisle City Association for Preventive and Rescue Work at Coledale Hall.

Ambulance Facilities.

(a) For infectious cases. The Corporation provide and own a motor ambulance for the removal to hospital of cases of infectious disease, which is operated by an officer of the Public Health Department. By arrangement, the ambulance and the officer who has charge of this work are also available for the removal to hospital of cases of infectious disease from any part of the area of the Carlisle Rural District Council.

(b) For non-infectious and accident cases. A public ambulance, provided by the Corporation, for accidents and illness other than infectious disease, is kept at the Fire Station, Spring Gardens Lane, for which the following charges are made:—

For residents in the City ...	... 7/6 for each removal
For not exceeding 2 miles outside the City ...	... 10/- ,,
For beyond 2 miles and not exceeding 3 miles ...	... 12/6 ,,
For each additional mile thereafter (limited to 20 miles outside the City) ...	... 3/- per mile

Between 9 p.m. and 7 a.m. 50 per cent. additional is charged.

In cases of accidents in the streets no charge is made for the removal of persons to the Infirmary or their homes.

LIST OF EXISTING CLINICS AND INFANT WELFARE CENTRES IN THE CITY.

Nature of Centre.	Address.	Accommodation.	Provided by.
Maternity and Child Welfare (Post-natal), once weekly	Maternity Hospital, 3 George Street	Waiting, Consulting, and Weighing Rooms	Carlisle Corporation
Maternity and Child Welfare (Ante-natal), once weekly	Do.	Waiting, Consulting, and Dressing Rooms	Do.
Infant Welfare Centre, weekly	West Walls	One Large Room	The Carlisle Mothers' and Babies' Welcome Society
Do.	St. John's Hall, South Street	Two Rooms	Do.
Do.	Caldewgate	One Room	Do.
Do.	Howie Boyd Hall, Currock	Two Rooms	Do.
School Clinic, Minor Ailments, daily	2 George Street	Three Rooms	Carlisle Corporation
Do.	Do.	Two Rooms	Do.
Do.	Do.	Two Rooms and Dark Room	Do.
Do.	Do.	Two Rooms	Do.
Tuberculosis Clinics, three times weekly	1 George Street	Four Rooms and Laboratory	Do
Veneral Clinic, five sessions weekly and intermediate treatment	Cumberland Infirmary	Three Rooms	Jointly by Carlisle Corporation and the Cumberland County Council

Professional Nursing in the Home.

(a) *General.* None.

(b) *Infectious.* An annual retaining fee of £20 is paid by the Council to the Carlisle District Nursing Association, on condition that nursing facilities will be made available by them for such cases of puerperal fever, ophthalmia neonatorum, measles, whooping cough, and epidemic diarrhœa, as the Council may require them to attend. In addition, 1s. per visit is paid on account of such cases.

Midwives.

The Corporation do not employ midwives except at the Maternity Hospital, and do not pay any subsidy in respect of any midwife practising in the district.

There were 24 midwives in practice in the area at the end of the year.

Registration of Maternity Homes.

1.	Number of Applications for registration	...	7
2.	„ „ Homes registered	... ..	6
3.	„ „ Orders made refusing or cancelling registration	... ..	1
4.	„ „ Appeals against such Orders	...	—
5.	„ „ Cases in which such Orders have been		
	(a) confirmed on appeal	... ..	—
	(b) disallowed	... ..	—
6.	„ „ Applications for exemption from registration	... ..	2
7.	„ „ Cases in which exemption has been		
	(a) granted	... ..	2
	(b) withdrawn	... ..	—
	(c) refused	... ..	—

Chemical Work.

This work is carried out by Cyril J .H. Stock, Esq., B.Sc., F.I.C., &c., of Darlington. The results of his analyses of the various foods, drugs, &c., for the year are shown on pages 22 and 81.

Bacteriological Work.

24 samples of milk were submitted to the Public Health Laboratory, Manchester, for bacteriological examination, 20 being samples of fresh cows' milk and 4 of pasteurised cows' milk. These were all routine samples purchased from milkshops and carts in the City. In two instances of the fresh cows' milk, tubercle bacilli were found. The subsequent procedure in these two cases resulted in the elimination by the City Veterinary Inspector of a milk cow from one of the City byres and by the Veterinary Inspector of the Cumberland County Council of two milk cows from a herd in the Longtown area.

71 specimens of sputum have been examined at the Tuberculosis Dispensary for the presence of the tubercle bacillus, in 22 of which the organism was found.

43 swabs from throats were submitted to the Clinical Research Association for examination for the Klebs Loeffler Bacillus, and in 19 instances the organism was found.

Four samples of City water, taken from a domestic tap, were submitted to the Public Health Laboratory, Manchester, for bacteriological examination. A tabulated summary of the reports is given on page 21.

The following Acts, Bye-laws, and Regulations are in force in the district, and were adopted on the dates mentioned:—

Bye-laws with respect to New Streets and Buildings under the Public Health Act, 1875	... ..	13th Oct., 1885
Regulations under the Contagious Diseases (Animals) Act, 1886, and the Dairies, Cowsheds, and Milkshops Order of 1885	... ..	16th July, 1889
The Infectious Diseases (Prevention) Act, 1890	... ..	10th March, 1891
The Public Health Acts (Amendment) Act, 1890	... ..	10th March, 1891
Bye-laws for regulating the Public Pleasure and Recreation Grounds, made in pursuance of the Public Health Act, 1875	... ..	14th Feb., 1893
Bye-laws with respect to Common Lodging-houses, made in pursuance of Section 80 of the Public Health Act, 1875	... ..	15th Aug., 1893
Bye-laws relating to the conveyance of carcases of dead animals through the streets	... ..	8th Jan., 1895
Bye-laws for regulating the Carlisle Public Slaughter-houses under the Public Health Act, 1875	... ..	12th May, 1896
Bye-laws made for regulating the carrying on of offensive trades, in pursuance of Section 113 of the Public Health Act, 1875	... ..	9th March, 1897
Baths and Wash-houses Acts	... ..	9th July, 1901
Measles Regulations, 1923	... ..	1st Jan., 1924
Public Health Acts (Amendment) Act, 1907—		
Section 86, Marine Store Dealers, and Dealers in old Metal	... ..	22nd Jan., 1914
Section 95. Miscellaneous Provisions	... ..	31st March, 1925
Part VI. Recreation Grounds	... ..	24th Aug., 1926
Section 51. Offensive Trades	... ..	10th June, 1926
Section 50. Ambulance	... ..	4th Aug., 1926
Public Health Act, 1925—		
Parts II. III. IV. and V.	... ..	9th March, 1926
Part VI.	... ..	24th Aug., 1926

RAINFALL.

Observations taken at the Carlisle Cemetery by Mr. J. T. Charlton.

MONTHS.	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927.		Average for 10 years 1917-1926.
											Rainfall. days on which Rain fell.	Number of days on which Rain fell.	
January	in. 1.53	in. 3.13	in. 2.88	in. 4.17	in. 5.01	in. 2.25	in. 1.74	in. 2.77	in. 2.19	in. 2.67	in. 2.97	23	in. 2.83
February	... 1.13	... 2.86	... 1.05	... 2.61	... 0.16	... 2.87	... 4.08	... 0.95	... 4.82	... 3.94	... 1.41	19	... 2.44
March	... 1.98	... 0.66	... 2.35	... 3.11	... 3.71	... 1.31	... 0.84	... 1.73	... 1.27	... 1.39	... 2.58	20	... 1.83
April	... 2.45	... 0.50	... 1.49	... 2.17	... 0.86	... 1.89	... 2.55	... 1.81	... 3.27	... 1.75	... 2.38	20	... 1.88
May	... 1.91	... 1.88	... 1.10	... 3.48	... 1.28	... 1.79	... 1.98	... 3.73	... 3.48	... 2.16	... 1.67	11	... 2.28
June	... 2.01	... 0.87	... 2.66	... 2.11	... 0.65	... 2.98	... 0.60	... 1.90	... 0.40	... 3.17	... 3.07	17	... 1.73
July	... 1.31	... 3.73	... 0.87	... 4.26	... 2.44	... 4.54	... 2.22	... 4.63	... 1.97	... 2.94	... 3.34	15	... 2.90
August	... 5.64	... 3.21	... 2.96	... 2.50	... 5.39	... 2.53	... 7.42	... 3.13	... 3.18	... 2.91	... 7.11	21	... 3.89
September	... 2.61	... 7.36	... 1.81	... 1.89	... 2.15	... 2.92	... 3.01	... 3.33	... 4.08	... 5.74	... 6.99	22	... 3.50
October	... 4.33	... 4.00	... 2.36	... 1.00	... 2.56	... 1.20	... 5.61	... 4.13	... 3.73	... 3.15	... 1.86	15	... 3.20
November	... 2.83	... 2.01	... 2.35	... 2.02	... 1.68	... 0.84	... 4.06	... 1.97	... 1.06	... 4.23	... 3.21	16	... 2.30
December	... 1.40	... 3.44	... 3.32	... 2.79	... 3.94	... 3.43	... 2.42	... 5.03	... 2.72	... 0.65	... 0.79	5	... 2.91
Totals ...	29.13	33.65	25.21	32.11	29.83	28.55	36.53	35.11	32.17	34.70	37.38	204	31.69
Total number of days on which Rain fell {	176	190	191	211	205	209	231	210	189	201	...	..	201

SANITARY CIRCUMSTANCES.**Water Supply.**

Total annual distribution of Water from Cumwhinton covered reservoir during the years 1918 to 1927.

Year.	Number of Gallons.	No. of Gallons per head, per day.
1918	795,220,000	34.58
1919	804,040,000	34.88
1920	814,170,000	35.41
1921	771,250,000	33.54
1922	759,500,000	32.98
1923	747,320,000	32.49
1924	712,630,000	30.90
1925	737,000,000	32.06
1926	758,630,000	33.00
1927	785,990,000	34.03

Bacteriological Results of Quarterly Samples of Water taken from a Domestic Tap.

QUANTITATIVE ANALYSIS		1927.			
A. Aerobic micro-organisms growing in 3 days in nutrient gelatine at 20° C. to 21° C.		Number of colonies in one gramme of water.			
		MAR.	JUNE.	SEPT.	DEC.
Non-Liquefying Bacteria ...	37	117	136	185	79
Liquefying Bacteria ...	1				
Other Micro-Organisms ...	...	...	...	...	...
B. Anaerobic Micro-Organisms ...	...	...	...	...	...

QUALITATIVE ANALYSIS.	1927.			
	MARCH.	JUNE.	SEPT.	DEC.
A. Bacteria associated with sewage or faecal pollution	B. Coli communis found in 100 C.C.	B. Coli communis found in 10 C.C.	B. Coli communis found in 10 C.C.	B. Coli communis found in 100 C.C.
B. Bacteria associated with disease	Not found	Not found	Not found	Not found

Results of Chemical Analyses of Quarterly Samples of Water taken from a Domestic Tap.

Results shown in parts per 100,000.		1927			
CHEMICAL.	MARCH.	JUNE.	SEPT.	DEC.	
Chlorine as Chlorides	1.1750	0.7750.	0.8750	1.3000	
Nitrogen as Nitrates ...	0.0411	None	.0411	trace	
Ammonia	None	None	trace	None	
Albuminoid Ammonia	.0100	trace	.0108	trace	
Oxygen absorption ...	.0720	.1729	.1977	.0506
Injurious Metals (Lead and Copper) ...	None	None	None	None	
Total Solid Matter dried at 100° C. ...	10	13	13	9	
Temporary Hardness ...	.80°	5.00°	6.60°	3.20°
Permanent Hardness ...	7.20°	4.20°	4.80°	4.80°	
Colour and Appearance in two-foot tube ...	Faint green, clear	Light green, not quite clear	Yellowish green, not quite clear	Faint green, clear	
Odour when heated to 50° C.	None	None	None	None	
Microscopical Examina- tion	Satisfactory	Minute deposit con- sisting of earthy and vegetable matter, etc.	Minute deposit con- sisting of earthy and vegetable matter, etc.	Minute deposit con- sisting of earthy and vegetable matter, etc.	

Rivers and Streams.

None of the water from rivers or streams in the area of the Authority is used for drinking purposes, and no necessity arose for any action to be taken in respect of pollution.

Drainage and Sewerage.
Closet Accommodation.
Scavenging.
Sanitary Inspection of
the Area.
Smoke Abatement.
Offensive Trades.

} Information regarding these matters will be found on pages 75 to 79.

Schools.

The sanitary condition of the schools generally is satisfactory. Some of the school buildings are, however, old or of an old type. There are adequate facilities in every school in the area for an abundant supply of water, both for drinking and all sanitary purposes, under the Authority's scheme of water supply.

Neither the Local Authority nor the Education Committee have for a number of years been able to satisfy themselves that any appreciable benefit in respect of the spread of infectious disease would be likely to result from school closure, consequently the methods adopted against the prevention of the spread of infectious disease have been the various active steps taken by the officers of the Authority, and the exclusion of individual scholars.

HOUSING.

Up to the end of the year the total number of houses for the erection of which the Corporation had received the sanction of the Minister of Health was 1,728. 188 relate to the parlour type of house, and 1,540 to the non-parlour type. When the whole number is completed provision will have been made as follows:—Denton Street, 24; Boustead's Grassing, 32; Stanwix, 74; Longsowerby, 248; Blackwell Road Estate, 632; Wigton Road Estate, 188; Raffles Estate, 400; and Botcherby Estate, 130.

The total number of houses erected at the end of the year was 1,394, and were provided as follows:—Denton Street, 24; Boustead's Grassing, 32; Stanwix, 74; Longsowerby, 248; Blackwell Road Estate, 612; Wigton Road Estate, 188; and Raffles Estate, 216.

The number of houses in course of erection at the end of the year was 334, comprising 20 on the Blackwell Road Estate, 184 on the Raffles Estate, and 130 on the Botcherby Estate, 28 being of the parlour type, and 306 of the non-parlour type.

During the year 36 houses were built by private enterprise, all of which were eligible for the subsidy under the provisions of the Housing, &c., Act, 1923. These comprise 25 of the parlour type and 11 of the non-parlour type. At the end of the year 11 houses of the parlour type, which were being built by private enterprise, were in course of erection.

Number of New Houses erected during the year :—

(a) Total (including numbers given separately under (b)).	446
(b) With State assistance under the Housing Acts :	
(i) By the Local Authority.	410
(ii) By other bodies or persons.	36
<i>1.—Inspection of Dwelling Houses.</i>	
(1) Total number of dwelling houses inspected for housing defects (under Public Health or Housing Acts) ...	227
(2) Number of dwelling houses (included under sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925 ...	95
(3) Number of dwelling houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	6
(4) Number of dwelling houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation ...	89
<i>2.—Remedy of Defects without Service of formal Notices.</i>	
Number of defective dwelling houses rendered fit in consequence of informal action by the Local Authority or their officers ...	19

3—Action under Statutory Powers.

(a) Proceedings under Section 3 of the Housing Act, 1925—

(1) Number of dwelling houses in respect of which notices were served requiring repairs	109
(2) Number of dwelling houses which were rendered fit after service of formal notices	
(a) By Owners	None
(b) By Local Authority in default of Owners	None
(3) Number of dwelling houses in respect of which Closing Orders became operative in pursuance of declarations by Owners of intention to close	None

(b) Proceedings under Public Health Acts—

(1) Number of dwelling houses in respect of which notices were served requiring defects to be remedied	132
(2) Number of dwelling houses in which defects were remedied after service of formal notices	
(a) By Owners	132
(b) By Local Authority in default of Owners	None

(c) Proceedings under Sections 11, 14, and 15 of the Housing Act, 1925—

(1) Number of representations made with a view to the making of Closing Orders	6
(2) Number of dwelling houses in respect of which Closing Orders were made	6
(3) Number of dwelling houses in respect of which Closing Orders were determined, the dwelling houses having been rendered fit	None
(4) Number of dwelling houses in respect of which Demolition Orders were made	None
(5) Number of dwelling houses demolished in pursuance of Demolition Orders	None
(6) Number of dwelling houses demolished by Owners after service of Closing Orders	6

INSPECTION AND SUPERVISION OF FOOD.

Milk Supply.

The number of milk producers in the City is 18, the number of cowsheds 32, and the average number of cows housed therein 248.

During the year there were 16 milkshops and 64 milk purveyors on the register, 34 of the purveyors being persons whose premises are situated outside the City.

With regard to the milk supply of the City, no outbreak of acute infectious illness has occurred; some of the milk, however, leaves a good deal to be desired in respect of micro-organisms and dirt content.

The larger proportion of the fresh milk retailed in the City comes from districts outside, and is sold direct from the cans, conveyed mostly by carts, and in four instances by motor vehicle. 3 purveyors retail the whole of their milk in bottles, the milk being cooled and bottled at the time of production. 7 other purveyors sell partly from the can and partly in bottle; in 5 instances the milk is cooled and bottled at the time of production on premises in the City, and in the remaining 2 instances the milk is not bottled until after its arrival in the City from farms outside.

With regard to the administration of the Milk and Dairies Order, 1926, 42 special inspections of premises have been made, in addition to which the members of the Health Committee have during the latter part of the year visited all the dairies in the area of the Local Authority upon which milk is produced, with a view of serving such notices upon the occupiers as may be necessary to secure a due compliance with the provisions of the Order.

3 licences have been issued under the Milk (Special Designations) Order, 1923, 1 to the Carlisle Co-operative Society, Ltd., in respect of pasteurising plant, and 2 to retailers, 1 of which was in respect of Certified Milk, and the other in respect of Grade A (Tuberculin Tested) Milk.

There has been no refusal or revocation of registration of a retailer or of a licence for graded milk.

The following particulars, which exclude the question of tubercle bacilli, show the bacterial condition of 24 samples of milk.

PASTEURISED MILK.

No. of sample.	Date when sample was taken.	Total No. of bacteria per 1 c. c.	B. Coli present in			Total sediment (cells, cellular products, litter, dung, &c.) in parts per 100,000.
			1 c. c.	.1 c. c.	.01 c. c.	
1	15th Feb.	22,000	—	—	—	17
2	16th May	20,400	—	—	—	10
3	15th Aug.	9,300	+	+	+	6
4	14th Nov.	174,000	+	+	—	15

RAW MILK.

No. of sample.	Date when sample was taken.	Total No. of bacteria per 1 c. c.	B. Coli present in			Total sediment (cells, cellular products, litter, dung, &c.) in parts per 100,000.
			1 c. c.	.1 c. c.	.01 c. c.	
1	15th Feb.	8,000	+	+	+	15
2	"	10,650	+	+	+	8
3	"	27,225	+	+	+	19
4	"	22,200	+	—	—	7
5	"	960,000	+	+	+	9
6	16th May	30,500	+	+	+	15
7	"	16,550	+	+	—	16
8	"	6,100	+	+	—	10
9	"	405,000	+	+	+	14
10	"	25,500	+	+	—	12
11	15th Aug.	365,000	+	+	+	4
12	"	1,985,000	+	+	+	3
13	"	3,500,000	+	+	+	4
14	"	1,270,000	+	+	+	trace
15	"	3,000,000	+	+	+	5
16	14th Nov.	258,500	+	+	+	48
17	"	16,950	+	+	+	20
18	"	1,727	—	—	—	24
19	"	565,000	+	+	+	19
20	"	570,000	+	+	+	27

Public Health (Milk and Cream) Regulations, 1912 and 1917.

1. Milk; and Cream not sold as Preserved Cream.

	(a) Number of samples examined for the presence of a preservative.			(b) Number in which a preservative was reported to be present.		
Milk	60	...	...	None
Cream	4	...	...	1

Nature of preservative in each case in column (b) and action taken under the Regulations in regard to it—

This sample contained .066 per cent. of Boric Acid, and the vendor was cautioned.

2. Cream sold as Preserved Cream.

No samples were submitted for examination.

Meat.

The Corporation maintain a commodious and well-equipped Slaughter-house, which was opened in 1893. The management is under the direction of the Medical Officer of Health, who is assisted by the Sanitary Inspector and his deputy, and a resident Superintendent at the Abattoir itself. With the exception of the three following premises all animals slaughtered in the City are dealt with at the Public Abattoir, viz., the L.N.E. Railway and the L.M. & S. Railway killing sheds, two in number, which are used exclusively for the slaughter of sheep and lambs for the Smithfield Market, and a third exclusively for the slaughter of pigs by Messrs. Cavaghan & Gray, Harraby.

Inspection of meat at the Public Slaughter-house is performed in the first instance by the Superintendent, who retains all unsound, diseased, or suspected meat for further examination by the Medical Officer of Health or other authorised officer of the Local Authority acting under him. Meat stalls are not permitted in the City, other than those situate inside the Public Market, a large covered market owned by the Local Authority. All other shops from which meat is sold are regularly inspected, and without exception every butcher's shop in the City is fitted with a window or windows.

Public Slaughter-houses.

The following Table gives particulars of Animals killed, Carcasses examined, and particulars of Carcasses unfit for human food:—

Animal	Total number of animals slaughtered and examined	Number of carcasses specially referred for examination	Number in which the whole carcase was unfit for human food	Number in which a portion of a carcase was unfit for human food	Number in which edible offal only was unfit	Number affected with Tuberculosis.	
						Whole carcase condemned	Part of carcase condemned
Oxen	4,454	96	66	23	7	61	15
Sheep	16,984	38	34	4	...	...	...
Calves	193	8	8	...	...	2	...
Pigs	5,548	19	13	6	...	3	3
Totals	27,179	161	121	33	7	66	18

Other Foods.

Information concerning unsound food, food inspection, bakehouses, &c., and the work under the Sale of Food and Drugs Acts will be found on pages 77 to 81.

PREVALENCE OF, AND CONTROL OVER, INFECTIOUS DISEASES.

Infectious Diseases Generally.

During the year 618 notifications of infectious disease were received, 89 of which related to various forms of tuberculosis, and 529 to other infectious diseases.

The number of deaths certified as due to the seven principal zymotic diseases was 16, equal to a zymotic death-rate of 0.2 per 1,000 of the population. In the previous year 64 deaths were certified as due to zymotic diseases.

Table showing the Age Groups and Wards in which cases of Infectious Diseases were notified during 1927.

	Number of Cases Notified at various Ages.						Number of Cases notified in each Ward.									Total number of cases notified	Number of cases in- correctly notified	Nett number of cases notified	Number of cases removed to hospital		
	Under 1 year	1—5 years	5—15 years	15—25 years	25—45 years	45—65 years	65 and up- wards	Stanwix and Eterby	Rickergrate	Aglionby	Greystone	St. Nicholas	Currock	Denton Holme	St. Guthbert's					Caldegate	Newtown & Belle Vue
Scarlet Fever	1	20	55	14	4	1	...	6	12	9	3	5	10	13	13	10	14	95	4	91	59
Diphtheria ...	...	8	16	5	2	...	...	11	1	1	1	3	3	3	4	4	...	31	2	29	15
Puerperal Fever	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...
Erysipelas ...	...	1	...	4	12	16	3	2	3	4	1	4	4	4	1	2	12	37	2	35	12
Malaria ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Primary Pneumonia	5	19	27	15	13	4	5	4	8	4	10	11	18	7	7	12	7	88	...	88	3
Acute Influenzal Pneumonia	1	3	4	6	10	6	1	...	3	3	3	...	3	3	6	3	7	31	...	31	...
Encephalitis Lethargica	...	...	...	...	...	1	...	...	1	1	...	1	1	...	...	1	...	1	...	1	...
Ophthalmia Neonatorum	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	6	...	6	...
Cerebro-spinal Fever	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	1	1
Para-Typhoid Fever	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	32	194	...	...	...	...	...	4	7	14	21	25	15	21	31	37	51	226	...	226	2
Pulmonary Tuberculosis	...	2	16	18	19	9	2	3	5	2	11	10	10	4	7	9	5	66	...	66	...
Other forms of Tuberculosis	1	4	11	...	4	2	1	...	3	2	2	4	3	2	1	2	4	23	...	23	1
Enteric Fever	...	...	...	...	2	...	...	...	...	1	...	1	...	...	...	...	...	2	...	2	...
Dysentery ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10	...	10	...
Puerperal Pyrexia ...	...	...	...	2	8	...	...	2	...	...	3	...	2	1	...	1	...	10	...	10	...

Scarlet Fever.

95 cases of scarlet fever were notified, as compared with 240 in 1926. There was no evidence of any particular local spread of infection.

59 of the patients, or 62.1 per cent., were removed to the Isolation Hospital.

No deaths of residents were registered as being due to Scarlet Fever.

2 return cases occurred.

No experimental work in connection with ascertainment of susceptibles or work in respect of immunisation has been undertaken.

Table showing notifications, cases isolated, and number of deaths from scarlet fever during the years 1923-1927.

Year.	No. of cases notified.	No. of cases isolated in Hospital.	Average period in Hospital (days).	No. of return cases.	No. of deaths.	Deaths per 100 cases.
1923	150	82	41.7	0	1	0.
1924	245	171	35.9	9	4	1.6
1925	369	190	37.9	10	4	1.0
1926	240	129	38.6	6	4	1.6
1927	95	59	36.1	2	0	0.

Diphtheria.

The number of cases of diphtheria notified was 31, compared with 56 in 1926.

In 2 instances the patient was subsequently found not to be suffering from diphtheria.

2 deaths of residents of the City occurred, and the death-rate for this disease was 0.03 per 1,000 of the estimated population at all ages.

15, or 48.3 per cent., of the cases notified were removed to the Isolation Hospital.

No return case of diphtheria occurred.

No experimental work in connection with ascertainment of susceptibles or work in respect of immunisation has been undertaken.

Table showing notifications, cases isolated, and number of deaths from diphtheria during the years 1923--1927.

Year.	No. of cases notified.	No. of cases isolated in Hospital.	No. of deaths.	Deaths per 100 cases.
1923	87	46	10	11.5
1924	68	46	9	13.2
1925	19	7	2	10.5
1926	56	35	10	17.8
1927	31	15	2	6.4

Anti-Diphtheria Serum.

24 applications were made by medical practitioners for the free supply of anti-diphtheria serum, 188,000 units having been supplied.

Table showing case mortality of Scarlet Fever and Diphtheria isolated in Hospital compared with that of Home Cases.

Year.	SCARLET FEVER.				DIPHTHERIA.			
	Hospital Cases.		Home Cases.		Hospital Cases.		Home Cases.	
	No. of Cases Isolated.	Death-rate per 100	No. of Cases Isolated.	Death-rate per 100	No. of Cases Isolated.	Death-rate per 100	No. of Cases Isolated.	Death-rate per 100
1923	82	0.0	68	1.4	46	6.5	41	17.0
1924	171	1.7	74	1.3	46	13.0	22	13.6
1925	190	0.0	179	2.2	7	0.0	12	16.6
1926	129	2.3	111	0.9	35	17.1	21	19.0
1927	59	0.0	36	0.0	15	6.6	16	6.2

Smallpox.

In view of the present situation of smallpox in this country it is gratifying to know that the City was free from this disease during the year, and no notification of any Carlisle resident having been in contact with a case of smallpox was received from any Port Medical Officer. The following notifications of residents who had been or who were supposed to have been in contact with persons suffering from smallpox were, however, received, and the contacts kept under careful observation, viz., two persons who in October were in indirect contact with smallpox in one of the large towns of Lancashire, and a third case in December, a male of the vagrant class, who was discharged at the end of November from the Newcastle Institution Hospital, where there had been an outbreak of smallpox. This man stayed at a house in Jane Street, Caldewgate, and on his entry into the Fusehill Institution a communication was received from the Medical Officer of the Institution giving me the history of the man's movements. In this instance it was necessary to keep under observation 15 contacts.

No vaccinations were undertaken during the year under the Public Health (Smallpox Prevention) Regulations, 1917.

Enteric Fever.	} 2 notifications relating to these diseases were re- ceived during the year.
Para-Typhoid Fever.	
Typhus or Continued Fever.	

With regard to the 2 cases of enteric fever shown above, the first occurred at the beginning of August and the second towards the end of October, and both were undoubted cases of typhoid fever. It is somewhat difficult to disprove that these two persons were not infected in this area, but having regard to the freedom of the City from this disease over a fairly long period it is probable the infection took place away from Carlisle, and particularly as both men spend a good portion of their time in other parts of the country. One, for instance, was a commercial traveller, whose duties take him into various parts of Cumberland and parts of Northumberland and Westmorland, the second being a railway stoker, whose duties take him at times as far away as Crewe,

and in this connection it is also significant that in both instances the individuals had consumed oysters at one of the large popular watering places shortly before the commencement of the illness.

Table showing the average number of cases notified as enteric fever for 5-year periods, 1890—1924, and for the 3 years 1925-1927.

Years.	Average for periods of 5 years.	Year.	Number of cases notified.
1890-1894	21.2	1925	...
1895-1899	18.6	1926	...
1900-1904	12.6	1927	2
1905-1909	3.2	...	...
1910-1914	3.8	...	...
1915-1919	1.4	...	...
1920-1924	2.2	...	...

Malaria.

No notification relating to a patient suffering from malaria was received.

Dysentery.

No case of dysentery was notified.

Pneumonia.

119 notifications of pneumonia were received during the year. In 31 instances the disease was stated to be of the acute influenzal type, and in 88 instances of the acute primary type.

All were investigated by the Health Visitors and advice given as to the nursing and prevention of infection to others. 229 visits were made in this connection.

In 3 instances was the patient removed to Hospital.

Death took place in 3 instances of the cases notified as influenzal pneumonia, and in 13 instances of those notified as primary pneumonia.

Influenza.

14 deaths of residents were registered as due to influenza, as against 7 in 1926.

The age distribution of the deaths occurring among the 14 persons was as follows:—

0 to 1	1 to 2	2 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and up- wards	Total
..	1	...	...	1	...	2	2	2	4	2	..	14

Encephalitis Lethargica.

1 case of encephalitis lethargica was notified.

Cerebro-Spinal Fever.

1 case of cerebro-spinal fever was notified.

Tetanus.

No case of tetanus was notified.

Diarrhœa.

There were 13 deaths from diarrhœa during the year, and the Health Visitors paid 62 visits in connection with cases of diarrhœa and gastro-enteritis.

The following table shows the age incidence:—

Age.	No. of Deaths.
0— 1 year	8
1— 2 years	1
2— 5 years	—
5—15 years	—
15—25 years	—
25—45 years	2
45—65 years	1
Over 65 years	1
	—
	13
	—

Other Infectious Diseases.

Information relating to puerperal fever, ophthalmia neonatorum, measles, whooping cough, chicken-pox, and mumps, are given on pages 69 to 71.

Notification Fees.

The total amount paid in fees for notification of all notifiable diseases during 1927 was £57 18s. 0d.

TUBERCULOSIS.

The number of notifications of tuberculosis received during the year was 94, of which 5 were duplicates. 72 of the primary notifications were made by medical practitioners and 17 by the Authority's medical officers. 66 were in respect of pulmonary tuberculosis and 23 were in respect of other forms of the disease. The number of other cases coming to the notice of the Medical Officer of Health otherwise than by notification was 13, making in all a total of 102 new cases. The figures show an increase over those of the preceding year in respect of notifications, both on Forms A and B, and in respect of pulmonary and non-pulmonary tuberculosis, but supplemental cases were fewer, particularly in respect of non-pulmonary tuberculosis.

The total number of deaths from tuberculosis was 62, equal to a death-rate of 1.0 per 1,000 of the population at all ages. Of this number, 51, or 82.2 per cent., were due to pulmonary tuberculosis, equal to a death-rate of 0.9 per 1,000 of the estimated population. There is a decrease in the death-rate, as compared with 1926, of 0.1 per 1,000 for all cases, but an increase of 6.1 per cent. in the deaths due to pulmonary tuberculosis, which is equal to an increase of 0.1 per 1,000 of the population. 17.7 per cent. of the total deaths were persons who had not been notified; this shows a slight decrease on the figure for 1926, which was 22.2 per cent. A further 8 per cent. died within a week of notification, so that in respect of one-fourth of the total cases the Local Authority were unable to exercise any action, preventive or otherwise, and the fact that only 61.4 per cent. of those dying from tuberculosis survived for more than one month, and only 37 per cent. for more than three months after notification, indicates that these victims had arrived at a very late stage of the disease before a notification reached the Local Authority. It is known, of course, that some of these sufferers do not consult their doctor until they are in an advanced stage of the disease, but on the other hand cases come to my notice where patients have been under the care of medical practitioners for many months before a notification is received.

No proceedings have been taken on the grounds of wilful neglect or refusal to notify, but some time ago the

Town Clerk addressed a letter upon this subject to all medical practitioners in the area, as follows:—

“The Ministry of Health have been in communication with the Local Authority, pointing out that the percentage of new cases of Tuberculosis formally notified of all new cases in the City during the year 1926 is very low and shows a decrease during the past three years.

As you are aware, the Public Health (Tuberculosis) Regulations, 1912, provide that every medical practitioner attending on, or called in to visit, any person (whether at an Institution or otherwise) shall, unless he has reasonable grounds for believing that the case has already been notified, within 48 hours after first becoming aware that such person is suffering from Tuberculosis, make and sign a notification of the case on the forms provided, and shall transmit the notification to the Medical Officer of Health for the district within which the place of residence of the person is situate at the date of notification.

In directing attention to the requirements of the Regulations the Ministry of Health enquires whether the Local Authority have considered the question of instituting proceedings for the recovery of a penalty in any case of wilful neglect or refusal to carry out the requirements of notification under the Regulations. Any person who wilfully neglects or refuses to obey or carry out the Regulations is liable to a penalty not exceeding £100.

The Health Committee have had the matter under consideration, and I enclose an extract from the minutes of their proceedings, confirmed by the Council.

The Committee desire to avoid, if possible, the institution of legal proceedings against any medical practitioner, and they have therefore requested me to specially direct the attention of all medical practitioners in the City to the requirements of the Regulations, in the hope that all practitioners concerned will, by strict compliance with the Regulations in the future, co-operate with the Local Authority in their efforts to safeguard the public health.

I am to add that the services of the Local Authority's Tuberculosis Officers may be utilised freely, in order that in any doubtful case a definite diagnosis may be arrived at as soon as possible.”

CITY OF CARLISLE.

Extract from the minutes of the proceedings of the Health Committee held on the 27th day of May, 1927, confirmed by the Council on the 14th day of June, 1927.

PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

The Town Clerk reported that the Ministry of Health had made enquiries as to the low percentage of new cases of Tuberculosis notified to the Medical Officer of Health, in accordance with the requirements of the above Regulations, and submitted a letter, dated the 2nd instant, from the Ministry, enquiring whether the Council had considered the question of instituting proceedings under the provisions of the Public Health Act, 1896, for the recovery of a penalty in any case of wilful neglect or refusal to carry out the requirements of notification under the Regulations, and the Medical Officer reported thereon.

Resolved—That the Town Clerk be requested to direct the attention of all medical practitioners in the City to the requirements of the Regulations, and that failing compliance with the requirements thereof in the future, proceedings be instituted for the enforcement of the penalties.

Truly extracted,

A. H. COLLINGWOOD,

Town Clerk.

Year	Deaths		New Cases.		Notifications on Forms A & B.	
	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary	Pulmonary	Non-Pulmonary
1923	40	14	78	24	71	16
1924	49	20	109	31	104	20
1925	49	7	97	20	88	15
1926	48	15	62	28	55	16
1927	51	11	74	28	66	23

The number of cases on the Notification Register at the beginning of the year was

<i>Type.</i>		<i>Male.</i>	<i>Female.</i>	<i>Total.</i>
Pulmonary	...	157	156	313
Non-Pulmonary	...	43	45	88
<hr/>				
All Cases	...	200	201	401
<hr/>				

and after complete revision the number still on the Register at the end of the year was

<i>Type.</i>		<i>Male.</i>	<i>Female.</i>	<i>Total.</i>
Pulmonary	...	145	141	286
Non-Pulmonary	...	46	47	93
<hr/>				
All Cases	...	191	188	379
<hr/>				

The usual tables showing the incidence of the disease, ward distribution, &c., are appended, and are explained by the context.

With regard to the work of the Tuberculosis Dispensary, 107 new cases were examined during the year, in addition to 8 other cases transferred from other areas or "lost sight of" cases returned. 81 of the cases were examined after notification or as suspected cases of tuberculosis, while 26 were contacts. 59 of the first group were found to be definitely tuberculous, 12 were classified as doubtful, and 10 were not suffering from tuberculosis. Of the 26 contacts, 3 were definitely tuberculous, 6 were doubtful, and 17 were not tuberculous. Of the 62 actual new cases, 50 were suffering from pulmonary and 12 from non-pulmonary tuberculosis, 41 being adult cases and 21 children.

The number of old cases on the Dispensary Register at the beginning of the year was 334, and of this number 220 submitted themselves for re-examination, bringing the total number of persons under supervision at the Dispensary to 335. These made a total of 943 attendances,

of which 256 were by insured persons, 48 by discharged soldiers, 500 by school children, and 139 by other categories. 131 visits were made by the Tuberculosis Officer to the homes of patients.

There is a decrease in the number of attendances at the Dispensary of school children in respect of injections of tuberculin, but this practice was discontinued in the latter half of the year; the total number of injections given was 207.

143 sessions were devoted to the work of the Tuberculosis Clinic, and the average number of persons attending per session was 6.6.

The yearly revision of the Tuberculosis Dispensary Register of persons under supervision has resulted in 31 patients being written off as cured. The names of 66 persons have been removed as non-tuberculous, 41 have died, and a further 41 have been lost sight of. At the end of the year the number still on the Register was 270, of whom 249 were definitely diagnosed as tuberculous, and in 21 instances the diagnosis was incomplete. Of the definite cases, 200 are pulmonary and 49 non-pulmonary.

The tuberculosis nurses of the Local Authority visited the homes of all new cases notified during the year, and also of all patients on the Register.

Bacteriological examination of sputum was carried out in respect of all new cases and certain other cases, as an aid to classification of the disease, and 36 specimens were submitted by medical practitioners with a view to establishing a diagnosis. In a number of instances consultation with the Tuberculosis Officer was requested in cases of suspected tuberculosis, a procedure which I am of opinion should much more often be employed by medical practitioners.

Considerable difficulty is experienced in obtaining a satisfactory examination of contacts, but there is some improvement to be noted in this direction, more particularly with regard to children.

Cod liver oil and malt, or Virol, was supplied in 14 instances, thermometers to 5 patients, and sputum flasks to 2 patients. No medicines were supplied from the Dispensary.

Information with regard to sanatorium treatment is given in the accompanying tables, from which it will be seen that 51 cases were dealt with in this manner, one of the cases being for observation only, and 2 ex-Service pensioners undergoing treatment at Preston Hall Colony, Aylesford, Kent. The average duration of residential treatment at Blencathra Sanatorium was 110 days for the 28 patients discharged during the year, 11 having been treated for less than 3 months, 11 from 3 to 6 months, and 6 from 6 to 12 months. The figures show that fewer cases were treated at the Sanatorium, and the period of treatment in respect of the cases discharged during the year was very slightly reduced, as compared with the preceding year. It is necessary to mention, however, that in regard to the 21 patients still undergoing treatment in the Sanatorium at the end of the year the average period of residence on that date was 207 days per patient. The type of case treated during the year, speaking generally, required fairly prolonged treatment, and the number of beds occupied during the winter months was larger than usual.

A new table is included for the first time in this Report, summarising the condition of patients who have come under the Authority's Scheme for the treatment of tuberculosis. Owing to the difficulties encountered in establishing a card index for patients dealt with many years ago it has not been possible to include in the present return statistics previous to 1924, but the investigation is continuing, and in time it is hoped to be able to give a complete table, which the Ministry of Health have asked to be furnished with if at all practicable.

No action was taken under the Public Health (Prevention of Tuberculosis) Regulations, 1925, nor under Section 62 Public Health Act, 1925.

Residential Institutions.

A—AVERAGE NUMBER OF BEDS AVAILABLE FOR PATIENTS DURING THE YEAR 1927.

	Observation	Pulmonary Tuberculosis		Non-Pulmonary Tuberculosis		Total
		"Sanatorium" Beds	"Hospital" Beds	Disease of Bones and Joints	Other Conditions	
Adult Males	*	20
Adult Females	
Children under 15	
Total	

* The Local Authority have a call upon 20 beds at the Blencathra Sanatorium, but there is no fixed agreement as to the number which shall be available for either sex, or for any fixed ages, or class of case, although this Institution strictly does not provide accommodation for what are called advanced cases.

B—EXTENT OF RESIDENTIAL TREATMENT DURING THE YEAR 1927.

		In Institutions on Jan. 1.	Admitted during the year	Discharged during the year	Died in the Institutions	In Institutions on Dec. 31
Number of Patients ...	M. Adults	5	16	11	...	10
	F. Adults	1	12	10	1	3*
	M. Children	1	4	2	...	3
	F. Children	6	5	4	..	6*
Number of Observation Cases ...	M. Adults	...	...	...	..	...
	F. Adults	...	1	1	...	...
	M. Children	..	...	...	...	...
	F. Children	...	...	...	..	...
Total ...		13	33	28	1	22

* One female attained adult age during period of treatment.

Work of the Dispensary.

43

Diagnosis	Pulmonary						Non-Pulmonary						Total		
	Adults			Children			Adults			Children			Adults		Children
	M.	F.		M.	F.		M.	F.		M.	F.		M.	F.	
A—New Cases examined during the year (excluding contacts) :—															
(a) Definitely tuberculous ...	20	20		2	6		1	...		6	4		21	20	
(b) Doubtfully tuberculous ...	1	1		6	4		...	...		...	...		1	1	
(c) Non-tuberculous ...	3	2		2	3		...	...		...	...		3	2	
B—Contacts examined during the year :—															
(a) Definitely tuberculous ...	...	...		...	2		...	...		1	...		...	...
(b) Doubtfully tuberculous ..	...	1		3	2		...	...		...	...		...	1	
(c) Non-tuberculous ...	5	3		3	6		...	...		...	...		5	3	
C—Cases written off the Dispensary Register as															
(a) Cured	5	13		4	7		1	...		...	1		6	13	
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error) ...	9	12		20	22		...	...		1	2		9	12	
D—Number of Persons on Dispensary Register on December 31st :—															
(a) Diagnosis completed ...	58	60		40	42		7	7		15	20		65	67	
(b) Diagnosis not completed ...	1	1		8	10		...	...		...	1		1	1	

D—Number of Persons on Dispensary Register on December 31st :—

(a) Diagnosis completed ...

(b) Diagnosis not completed ...

Work of the Dispensary—continued.

1. Number of Persons on Dispensary Register on January 1st	334	9. Number of Patients to whom Dental Treatment was given, at or in connection with the Dispensary	—
2. Number of Patients transferred from other areas and of "lost sight of" cases returned	8	10. Number of consultations with medical practitioners:—	
3. Number of Patients transferred to other areas and cases "lost sight of"	41	(a) At Homes of Applicants	3
4. Died during the year	41	(b) Otherwise	16
5. Number of observation cases under A (b) and B (b) on previous page in which period of observation exceeded 2 months	13	11. Number of other visits by Tuberculosis Officers to Homes	131
6. Number of attendances at the Dispensary (including Contacts)	943	12. Number of visits by Nurses or Health Visitors to Homes for Dispensary purposes	3207
7. Number of attendances of non-pulmonary cases at Orthopædic Out-stations for treatment or supervision	—	13. Number of	
8. Number of attendances, at General Hospitals or other Institutions approved for the purpose, of patients for		(a) Specimens of sputum, &c., examined	71
(a) "Light" treatment	—	(b) X-ray examinations made	—
(b) Other special forms of treatment	—	in connection with Dispensary work	
		14. Number of Insured Persons on Dispensary Register on the 31st December ..	85
		15. Number of Insured Persons under Domiciliary Treatment on the 31st December	12
		16. Number of reports received during the year in respect of Insured Persons:—	
		(a) Form G.P. 17	23
		(b) Form G.P. 35	40

(a) PULMONARY TUBERCULOSIS.

Annual Return showing in summary form the condition of all Patients whose case records are in the possession of the Dispensary (or Dispensaries) at the end of 1927, arranged according to the years in which the patients first came under Public Medical Treatment for pulmonary tuberculosis, and their classification as shown on Form A.

Condition at the time of the last record made during the year to which the Return relates	M. Adults	F. Children	M. Adults	F. Children	1924				1925				1926				1927			
					Class T.B. plus				Class T.B. plus				Class T.B. plus				Class T.B. plus			
					Class T.B. minus	Group 1	Group 2	Group 3	Total (Class T.B. plus)	Class T.B. minus	Group 1	Group 2	Group 3	Total (Class T.B. plus)	Class T.B. minus	Group 1	Group 2	Group 3	Total (Class T.B. plus)	Class T.B. minus
Discharged as cured	M.				..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.				1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	M.				..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.				..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Disease arrested	M.				..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.				2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	M.				4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.				4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Disease not arrested	M.				1	1	1	..	2	1	1	3	1	5	1	1	3	..	4	6
	F.				4	1	..	..	1	5	..	..	..	3	1	1	2	..	3	7
	M.				6	..	..	..	..	2	..	..	..	..	3	..	..	..	..	1
	F.				5	..	..	..	..	4	..	..	..	3	5	1	2	..	3	6
Condition not ascertained during the Year					1	..	..	..	..	4	1	1	..	1	2	..	1	..	..	..
					2	..	..	..	..	2	..	1	..	..	1	..	..	..	..	..
Lost Sight of or otherwise removed from Dispensary Register	M.				2	2	8	5	15	2	2	7	6	15	..	2	7	5	14	..
	F.				1	3	4	6	13	..	1	4	4	9	2	1	3	..	4	..
	M.				..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..
	F.				..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..
DEAD	M.				..	..	1	..	1	1	1	..	..	..	..	..	..	1	1	..
	F.				..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

Summary of Notifications of Tuberculosis from 2nd January, 1927, to 31st December, 1927.

NOTIFICATIONS ON FORM A.

		Number of Primary Notifications.													Total Prim- ary Noti- fications.	Total Noti- fications on Form A.		
		Ages.																
		0-1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65 & up- wards.						
Pulmonary	Males	...	2	1	3	4	4	5	4	5	1	1	30	31				
	Females	...	...	2	...	3	7	5	5	2	1	1	26	28		
Non-pulmonary	Males	1	1	1	1	...	...	1	2	1	...	...	8	9
	Females	...	3	...	2	...	...	...	1	...	1	1	8	9	
Totals		1	6	4	6	7	11	11	12	8	3	3	72	77				

NOTIFICATIONS ON FORM B.

		Number of Primary Notifications.					Total Noti- fications on Form B.
		Ages.	0-5	5-10	10-15	Total.	
Pulmonary	Males	...	...	1	1	...	1
	Females	...	2	7	9	...	9
Non-pulmonary	Males	...	2	2	4	...	4
	Females	...	1	2	3	...	3
Totals		...	5	12	17	...	17

NOTIFICATIONS ON FORM C.

		Poor Law Institutions.		Sanatoria.	
Pulmonary	Males	...	...	...	20
	Females	..	2	...	17
Non-pulmonary	Males	...	...	...	1
	Females	...	...	...	1
Totals		...	2	...	39

Supplemental Return.

New cases of tuberculosis coming to the knowledge of the Medical Officer of Health otherwise than by notification on Form A or Form B under the Public Health (Tuberculosis) Regulations, 1912.

Ages.	0-1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65 and upwards.	Total Cases
Pulmonary—												
Males .....	...	...	..	..	...	...	1	...	...	1	1	3
Females .....	...	...	..	...	...	...	1	2	...	2	...	5
Non-pulmonary												
Males .....	...	...	...	..	...	...	...	...	1	1	...	2
Females	1	1	1	...	..	..	...	...	...	...	.	3
Totals.....	1	1	1	...	..	...	2	2	1	4	1	13

The total number of deaths of City residents registered from all forms of tuberculosis was 62, equal to a death-rate of 1.0 per 1,000 of the population at all ages. Of this number, 51 (82.2 per cent.) were due to pulmonary tuberculosis, equal to a death-rate of 0.9 per 1,000 of the estimated population at all ages.

Distribution of the Deaths from Tuberculosis in the various Wards of the City, 1927.

	Stanwix and Etterby	Rickengate	Aglionby	Greystone	St. Nicholas	Currock	Denton Holme	St. Cuthbert's	Caldegate	Newtown & Belle Vue	Carlisle
Pulmonary ...	2	5	3	4	7	9	5	7	6	3	51
Non-pulmonary ...	...	1	...	2	2	1	1	...	3	1	11
Totals	2	6	3	6	9	10	6	7	9	4	62

Age and Sex distribution of New Cases and Deaths from Tuberculosis, 1927.

Ages.	0-1	1-5	5-10	10-15	15-20	20-25	25-35	35-45	45-55	55-65	65 and over.
New Cases.											
Pulmonary—											
Male ...		2	1	4	4	4	6	4	5	2	2
Female ...		...	4	7	3	7	6	7	2	3	1
Non-Pulmonary—											
Male ...	1	1	3	3	...	...	1	2	2	1	...
Female ...	1	4	2	4	...	...	...	1	...	1	1
Deaths.											
Pulmonary—											
Male ...	...	1	...	...	1	4	3	6	4	3	2
Female ...	...	...	...	...	5	7	8	2	1	3	1
Non-Pulmonary—											
Male ...	...	...	...	1	...	1	...	1	...	1	...
Female ...	1	2	2	...	...	...	1	...	...	...	1

Table showing the period persons dying in 1927 survived after notification.

	Not Notified	Died before Notification	Died within 7 days	Survived more than									
				1 week	1 month	3 months	6 months	9 months	1 year	1½ years	2 years	3 years	4 years
Pulmonary ..	7	...	3	41	34	21	20	15	13	10	8	5	3
Non-Pulmonary	4	...	2	5	4	2	2	2	1	...	...	...	...

Deaths from Tuberculosis, Influenza, and other Respiratory Diseases, 1923-1927.

Year.	Pulmonary Tuberculosis.	Non-Pulmonary Tuberculosis.	Tuberculosis, all forms.	Influenza.	Other Respiratory diseases.
1923	40	14	54	7	89
1924	49	20	69	23	115
1925	49	7	56	21	100
1926	48	15	63	7	92
1927	51	11	62	14	126

VENEREAL DISEASES.

During the year 211 persons residing in Carlisle, 153 of whom were males and 58 females, were under treatment or observation at the Clinic at the Cumberland Infirmary. This is an increase of 35 persons upon the figure for 1926.

104 new patients attended for the first time, as compared with 79 for 1926.

73 patients were found to be suffering from syphilis, 11 from non-syphilitic chancre, 107 from gonorrhœa, and 20 from conditions other than venereal disease.

1550 attendances were made by these patients, a decrease of 113 on the figure for the previous year. In addition, 1238 attendances were made by patients for intermediate treatment by irrigation. 439 doses of arsenobenzol compounds were administered to patients.

5 medical practitioners in the area are entitled to free supplies of arsenobenzol compounds, and 16 doses were issued during the year in this connection.

With regard to the examination of pathological material, in addition to the figures in the following table 56 specimens for Wassermann re-action were sent on behalf of medical practitioners to the Public Health Laboratory, Manchester.

No action has been taken in the area under the Venereal Diseases Act, 1917.

Clinics.

Clinics were held on the same days and at the same hours as in the previous year, viz.:—for women and children on Mondays at 2-30 p.m. and Thursdays at 5-30 p.m. The male clinics for syphilis were held on Wednesdays at 2-30 p.m. and Thursdays at 6 p.m., and the male clinics for gonorrhœa on Wednesdays at 6 p.m.

New cases were seen at any of the clinics.

Return relating to all persons resident in the City of Carlisle who were treated at the Treatment Centre at the Cumberland Infirmary during the year ended 31st December, 1927.

	Syphilis.		Soft Chancre.		Gonorrhoea.		Conditions other than Venereal.		Total.	
	M	F	M	F	M	F	M	F	M	F
1. Number of cases which— (a) at the beginning of the year under report were under treatment or observation for (b) had been marked off in a previous year as having ceased to attend or as transferred to other Centres, and which returned to the Treatment Centre during the year under report suffering from the same infection	29	13	...	...	32	11	...	...	61	24
Total—Items 1 (a) and 1 (b)	32	15	...	...	37	14	1	...	70	29
2. (a) Number of cases dealt with at the Treatment Centre during the year for the first time Total—Items 1 (a), 1 (b), and 2 (a)	16	10	10	1	49	7	8	11	83	29
(b) Number of cases included in Item 2 (a) known to have received previous treatment at other Centres for the same infection	48	25	10	1	86	21	9	11	153	58
3. Number of cases which ceased to attend— (a) before completing the first course of treatment for (b) after one or more courses, but before completion of treatment for (c) after completion of treatment, but before final tests as to cure of	3	3	..	...	2	...	...	...	5	3
4. Number of cases transferred to other Treatment Centres after treatment for	1	2	1	...	19	8	...	...	21	10
5. Number of cases discharged after completion of treatment and observation for	10	5	...	...	...	...	...	...	10	5
6. Number of cases which, at the end of the year under report, were under treatment or observation for	4	...	1	...	11	...	..	..	16	...
Total—Items 3, 4, 5 & 6	4	...	2	...	5	2	...	..	11	2
7. Out-Patient attendances— (a) For individual attention by the Medical Officer (b) For intermediate treatment, e.g., irrigation, dressings, etc.	3	...	6	...	21	4	...	...	30	4
Total Attendances	26	18	...	1	30	7	...	...	56	26
Total—Items 3, 4, 5 & 6	48	25	10	1	86	21	..	...	144	47
7. Out-Patient attendances— (a) For individual attention by the Medical Officer (b) For intermediate treatment, e.g., irrigation, dressings, etc.	388	335	48	1	596	140	19	23	1051	499
Total Attendances	57	...	6	...	1175	...	...	...	1238	...
Total Attendances	445	335	54	1	1771	140	19	23	2289	499

Aggregate number of "In-patient days" of treatment given:—Nil.

Number of doses of Arsenobenzol Compounds in Out-patient Clinic:—439.

Examinations of Pathological Material :—

	For Spirochaetes.	Detection of Gonococci.	Other Organisms.	For Wassermann Re-action.
(a) Specimens which were examined at, and by the Medical Officer of, the Treatment Centre...	...	70	14	...
(b) Specimens from persons attending at the Treatment Centre which were sent for examination to an approved laboratory ...	1	8	1	155

With regard to the joint scheme of the County Council and the City, during the year a total of 311 persons were treated at the treatment centre at the Cumberland Infirmary, Carlisle, of whom 165 were seen for the first time, the remainder being carried over from the previous year. 29 of these were found not to be suffering from venereal disease, leaving 282. The figure for 1926 was 220.

In the number of new cases of syphilis (39) there was a decrease of 1, and an increase of 29 in the new cases of gonorrhœa (85).

Areas in which Patients resided	New Patients	Total Attendances
Carlisle	112	2,788
Cumberland	34	394
Westmorland	3	35
Essex	1	1
Leeds	1	2
London	2	3
Manchester	1	1
Newcastle	2	7
Reading	1	1
Sunderland	1	6
Dumfriesshire	6	130
Glasgow	1	1
	<hr/> 165 <hr/>	<hr/> 3,369 <hr/>

MATERNITY AND CHILD WELFARE.

1,045 notifications of birth, or 173 fewer than in 1926, were received during the past year; 997 of these related to live births and 48 to still-births. 532 notifications were by medical practitioners and 513 by midwives. In 14 instances only did failure to notify the birth occur; 12 of these were live births and 2 were still-births.

Health Visitors.

The following is a summary of the visits paid by the Corporation Health Visitors:—

Total number of homes visited	...	...	11,807
Primary visits in connection with the notification of births	...	...	1,016
Re-visits to children between			
0—1 year	...	...	3,863
1—2 years	...	...	3,342
2—3 years	...	...	2,690
3—4 years	...	...	2,739
4—5 years	...	...	2,240
		—	14,874
Total number of routine visits to children	...	...	15,890
Visits to children nursed or maintained by persons other than the parents	...	...	82
Visits to expectant mothers—			
Primary	...	...	186
Re-visits	...	...	210
		—	396
Visits in connection with—			
Deaths of children under 1 year	...	...	56
Ophthalmia Neonatorum	...	...	23
Diarrhoea	...	...	62
Bronchitis	...	...	80
Broncho-pneumonia	...	...	26
Acute Lobar and Influenzal Pneumonia	...	...	203
Measles	...	...	553
Whooping Cough	...	...	100
Chicken-pox	...	...	319
Mumps	...	...	143
Phlegmasia	...	...	6
Puerperal Fever and Puerperal Pyrexia	...	...	8

Inspection of Midwives.

During January, 21 certified midwives gave notice of intention to practise, one of the 22 remaining on the register at the end of 1926 having died. On various dates during the year 8 other midwives notified their intention to practise, making a total of 29. 5 midwives left the City, 3 being members of the District Nursing Association staff who were replaced by others, leaving at the end of the year 24 midwives on the register, of whom 5 are employed in hospitals. The midwives other than those employed in hospitals attended a total of 382 confinements. No case of puerperal fever occurred in the practice of a midwife.

Notices, in accordance with the rules of the Central Midwives' Board, were received in respect of the following conditions:—

Cases in which a midwife called for the assistance of a medical practitioner	...	...	...	120
Notification of the intention to substitute artificial for breast feeding	...	...	...	31
Notification of still-births	...	...	...	8
Notification of having laid out a dead body	...	...	...	2
Notification of death before a doctor's arrival	...	...	...	1
Notification of liability to be a source of infection	...	...	...	2

The conditions for which medical help was either obtained or advised are as follows:—

Condition of Mother—

Ante-natal	...	...	...	...	12
Hæmorrhage	...	...	...	10	
Others	...	...	...	2	
During Labour	...	...	...	...	29
Delayed Labour	...	...	...	13	
Malpresentation	...	...	...	6	
Miscellaneous	...	...	...	10	
Post-natal	...	...	...	...	46
Retained Secundines	...	...	...	6	
Ruptured Perineum	...	...	...	34	
Phlebitis	...	...	...	4	
Others	...	...	...	2	

Condition of Child	...	...	...	...	33
Feebleness	...	...	...	...	9
Malformation	...	...	...	...	5
Inflammation of the Eyes	...	...	...	...	15
Others	...	...	...	...	4

The following are stated as the reasons for the substitution of artificial feeding:—

By doctors' orders, on account of—

Debility of mother	...	...	...	...	5
Mother's milk insufficient	...	...	...	...	11
Condition of breasts or nipples	...	...	...	...	1
No definite reason	...	...	...	...	7
					—
					24
					—

By midwives, on account of—

Insufficient milk	...	...	...	...	2
Condition of nipples	...	...	...	...	1
Disinclination of mother	...	...	...	...	2
Infant nursed out	...	...	...	...	2
					—
					7
					—

60 visits, viz., 28 routine and 32 special, were made to midwives for the purpose of supervision at their own homes, and their bags, outfits, and registers have been regularly inspected.

Letters relating to the following matters in connection with the rules of the Central Midwives' Board were written to midwives, viz.:—

Failure to notify a birth	...	...	...	...	1
Irregular action in sending for medical help	...	...	...	...	7
Inaccurate entry in form calling for medical help	...	...	...	...	1
Failure to notify intention to practise	...	...	...	...	1
<i>Re</i> Returning unused Registers, &c.	...	...	...	...	1

Home Nursing.

Under the arrangement with the Carlisle District Nursing Association the following conditions were attended to by their nurses:—

	No. of Cases.	No. of Visits.
Pneumonia	2	47
Ophthalmia Neonatorum ...	1	4
		—
		51
		—

Corporation Maternity Home.

182 patients received treatment in this institution, being 10 more than the previous year. 13 of the patients were admitted upon the request of medical practitioners, *i.e.*, 4 more than during 1926.

There was no maternal death during the year.

Obstetrical operations were performed as follows:—
Application of Forceps, 12; Induction of Labour, 2;
External Version, 12; Internal Podalic Version, 2;
Cæsarean Section, 2; Craniotomy, 1; Episiotomy, 1;
Manual Removal of Placenta, 2; Repair of Perineum, 44.

The Corporation Maternity Home is recognised as a training school for pupil midwives, and during the period of its existence 23 pupils have received their training and sat for the examination of the Central Midwives' Board. No failure has occurred, every pupil having passed the examination at the first attempt.

The following particulars relate to the work of the Maternity Home:—

In hospital on 31st December, 1926	...	...	3
Admitted during year	...	...	179
			—
			182
			—
Average duration of stay	...	...	12.1 days
Number of cases delivered by midwives	...	...	154
Number of cases delivered by a doctor	...	...	24
Total number of confinements	...	...	178
Number of cases treated ante-natally only	...	...	1
Number of cases treated during puerperium only	...	...	3

Number of cases in which medical assistance was specially indicated:—

Mothers—

Before Labour	...	...	...	...	19
Albuminuria	...	...	...	2	
Malpresentation	...	...	...	13	
Pelvic Contraction	...	...	...	1	
Heart Disease	...	...	...	2	
Hyperemesis	...	...	...	1	
During Labour	...	...	...	...	34
Pelvic Contraction	...	...	...	3	
Delayed Labour	...	...	...	11	
Placenta Prævia	...	...	...	2	
Hydramnios	...	...	...	1	
Malpresentation	...	...	...	9	
Accidental Hæmorrhage	...	...	...	3	
Prolapse of Cord	...	...	...	2	
Eclampsia	...	...	...	1	
Retained Placenta	...	...	...	2	
After Labour	...	...	...	...	52
Rupture of Perineum	...	...	...	44	
Raised Temperature	...	...	...	1	
Cardiac Disease	...	...	...	2	
Labial Abscess	...	...	...	1	
Albuminuria	...	...	...	1	
Post-Partum Hæmorrhage	...	...	...	2	
Mastitis	...	...	...	1	
For Infant	...	...	...	...	30
Atelectasis	...	...	...	2	
Cerebral Hæmorrhage	...	...	...	1	
Malformation	...	...	...	1	
Feebleness	...	...	...	3	
Artificial Feeding	...	...	...	16	
Slight Inflammation of Eyes...	...	...	...	6	
Tongue Tie	...	...	...	1	
Number of Maternal Deaths	...	...	...	None	

Still-births	...	...	...	...	...	...	13
Causes—							
Prolapse of Cord	..	...	...	...	...	...	1
Accidental Hæmorrhage	...	...	...	...	...	...	2
Placenta Prævia	...	...	...	...	...	...	2
Post Maturity	...	...	...	...	...	...	1
Malpresentation	...	...	...	...	...	...	1
Maternal Condition—Albuminuria	...	...	...	...	...	...	1
Prematurity	...	...	...	...	...	...	1
Pelvic Contraction	...	...	...	...	...	...	1
No cause ascertained	...	...	...	...	...	...	3
Died before 10 days	...	...	...	...	...	...	7
Causes—							
Malpresentation	...	...	...	...	...	...	1
Malformation	...	...	...	...	...	...	1
Prematurity	...	...	...	...	...	...	2
Atelectasis	...	...	...	...	...	...	1
Eclampsia	...	...	...	...	...	...	1
Accidental Hæmorrhage	...	...	...	...	...	...	1
Total number of Fœtal Deaths	...	...	...	...	...	...	20
Conditions necessitating the substitution of artificial feeding for breast feeding, wholly or partly	...	...	...	...	...	...	16
Insufficient Milk	...	...	...	...	...	...	9
Mastitis	...	...	...	...	...	...	1
Tubercular Disease	...	...	...	...	...	...	2
Cardiac Disease	...	...	...	...	...	...	1
Albuminuria	...	...	...	...	...	...	1
Twins	...	...	...	...	...	...	2

Ante-Natal Clinic.

The number of attendances by expectant mothers was 631, or 47 more than last year. Of these, 185 were first visits of new patients. It will be seen that patients pay three or four ante-natal visits each; this gives a good opportunity for the detection of any adverse condition which may be present.

Among the conditions in which medical attention or advice was given were the following:—Heart disease, tuberculosis, bronchitis, rheumatism, hyperemesis, dyspepsia, hydramnios, albuminuria, varicose veins, vulvitis, pelvic contraction, malpresentation, hæmorrhage, and œdema.

Infant Consultations.

At the clinics for children up to five years of age there were 836 attendances, or 100 more than in 1926, of which 225 were attendances by new cases, and treatment or advice was given in the following conditions:—Malnutrition, injudicious feeding, debility, marasmus, diarrhœa, dyspepsia, constipation, teething, worms, hernia, rickets, bronchitis, suspected phthisis, heart disease, anæmia, eczema, papilloma, chondroma, impetigo, ptosis, conjunctivitis, ophthalmia, otorrhœa, deafness, adenoids, phimosis, tongue-tie, stomatitis, adenitis, congenital syphilis, paralysis, and mongolism.

Voluntary Agency.

BABIES' WELCOMES AND SCHOOLS FOR MOTHERS.

The work at the Infant Welfare Centres continues satisfactorily on the same lines as in the previous years, one centre each week being visited by the Corporation's (Maternity and Child Welfare) Assistant Medical Officer. The number of new babies seen at these centres, 152, when added to the 225 new cases seen at the Municipal Centre, makes a total of 377 fresh children whom the Assistant Medical Officer has seen during 1927. This number comprises very little more than one-third of the total number of births during the same period, however, and it would be more satisfactory if a larger proportion were brought to the centres, either voluntary or municipal, as the advice given, especially regarding feeding in the early stages, might effect a further appreciable reduction in the infantile death-rate.

The following is a general summary of the work of the centres:—

Number of sessions held	168
-------------------------	-----	-----	-----	-----

Attendances of children—

First attendances	...	...	152	
Subsequent attendances	...	...	4,317	
				<hr/>
Aged 0—1 year	...	...	1,246	
Aged 1—5 years	...	...	3,223	
		Total	—	4,469
Attendances of mothers—				
First attendances	...	...	113	
Subsequent attendances	...	...	3,463	
		Total	—	3,576
Classes and addresses—				
Mothercraft	...	...	75	
Hygiene	...	...	48	
Cooking	...	...	2	
Sewing	...	...	1	
		Total	—	126

HEALTH VISITOR.

Total number of homes visited	...	...	...	3,446
Primary visits to children	...	...	...	413
Re-visits—				
0—1 year	...	...	...	1,392
1—2 years	...	...	...	891
2—3 years	...	...	...	886
3—4 years	...	...	...	842
4—5 years	...	...	...	864
			—	4,875
Total number of visits to children	...	...	...	5,288
Visits to expectant mothers	...	...	...	139
Number of attendances at Babies' Welcomes	...	...	...	107

Free Provision of Milk by the Corporation.

During the year 3,814 gallons of milk were supplied free of cost to 234 families for the purpose principally of assisting the feeding of infants, and in a few instances to nursing mothers, in each instance only after careful investigation into the circumstances of the family.

Still-births.

The number of still-births notified was 48, 3 of which were premature. The same number of still-births occurred in 1926. As regards 8 of this number there was no doctor present at the birth, and the

Infant Mortality.

The total number of deaths of infants under one year was 81; the number of deaths of residents was 71, which provides a net infant mortality rate of 68.4 per 1,000 of the registered births. If the figures are corrected by adopting the method suggested by the Registrar-General, viz., taking as the denominator the sum of 70 per cent. of the current year's births, and 30 per cent. of the births of the previous year, the infant mortality rate for 1927 was less, amounting to only 66.1. 68.4 is the lowest infant mortality rate ever recorded for the City, and is slightly lower than that for England and Wales as a whole during the same period.

The death-rate due to diarrhœa amongst infants up to one year was 7.7 per 1,000 registered births, as compared with 10.4 per 1,000 registered births in 1926, a reduction of 2.7 per 1,000. The actual number of deaths from diarrhœa was 8, as compared with 12 in 1926.

Only 1 death occurred during the "epidemic" diarrhœa period, viz., in August, 1 other death occurred in June, whilst the 6 remaining deaths from this disease were during the cooler months of the year; indeed the weather conditions in 1927 were such that summer diarrhœa is a term that could hardly be applied to any of the cases, and in this connection it will be noted from the table on page 68 that the mortality rate for bottle-fed infants is decreasing, indicating, I think, that greater care has been given in respect of the cleanliness of the milk and feeding utensils in the homes.

The number of deaths caused by prematurity, congenital defects, debility, marasmus, atelectasis, and birth injuries was 26, not much more than half the number accountable to the same causes during 1926.

Of the total infant deaths, 25 occurred before the child was one month old. This is a very welcome reduction, both actual and relative, in the number of deaths at this early period, and constitutes a saving of 14.2 per 1,000 births during the first four weeks of life,

as compared with last year's figures. Even so, 6 infant deaths occurred before the child was a day old, 2 from atelectasis, 1 from spina bifida, and 3 from prematurity; and before the tenth day 11 further deaths occurred from prematurity, congenital defects, or birth injuries.

The number of deaths from bronchitis and pneumonia was 25, the rate per 1,000 being 24.1, compared with 12.9 for 1926. These respiratory diseases take by far the heaviest toll of infant life after the first month is past.

There was only 1 infantile death from a zymotic disease, viz., whooping cough.

There was one death recorded from tuberculosis during the year.

The illegitimate death-rate is again low, being as for last year just about two-thirds that of the legitimate death-rate, which shows that in Carlisle the care expended upon such children compares very favourably with the attention given to those who have been more fortunate in their birth.

The Health Visitors paid 56 visits to homes with special reference to deaths of children under one year of age.

Infant Mortality,

CAUSE OF DEATH.	AGE.							MONTH.												Total Deaths under One Year.			
	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks & under 3 Months.	3 Months and under 6 Months.	6 Months and under 9 Months.	9 Months and under 12 Months.	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.		November.	December.	
All Causes.	13	4	4	3	24	7	13	15	10	11	7	9	4	4	4	4	4	9	1	1	6	9	69
	1	...	...	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1	1	...	2
Certified ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Uncertified...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Measles ...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Meningitis ...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Tuberculosis (all forms) ...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Bronchitis ...	...	...	...	...	1	2	2	4	1	...	...	...	...	...	...	...	...	...	...	...	...	...	10
Pneumonia (all forms) ...	...	...	1	...	1	2	1	4	7	2	4	5	1	...	...	...	...	...	...	...	...	...	15
Enteritis and Gastro Enteritis ...	...	...	...	1	1	1	5	1	...	1	...	...	...	...	2	...	...	...	...	...	...	...	8
Convulsions ...	...	...	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	...	...	...	...	2
Prematurity ...	6	1	1	...	8	1	...	2	...	1	...	2	...	...	1	...	3	...	...	...	...	...	9
Congenital Defects ...	4	1	1	1	7	...	2	...	...	...	...	...	...	2	1	1	4	...	...	2	...	...	11
Atelectasis ...	2	...	...	...	2	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2
Atrophy, Debility & Marasmus ...	1	...	1	...	2	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	2
Birth Injuries ...	1	1	...	...	2	...	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	2
Status Lymphaticus ...	...	...	...	...	...	...	1	1	1	1	1	...	1	...	...	...	...	...	...	...	...	...	3
Delayed Chloroform Poisoning ...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	1
Accidentally Suffocated ...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Ulcerative Tonsillitis ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Pericarditis ...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1
Totals	14	4	4	3	25	7	14	15	10	11	7	9	4	4	4	4	9	1	2	7	9	71	

Rates of Mortality among Infants at various ages, and from the principal causes, per 1,000 births.

Year	Nett Infant Mortality Rate.	AGES.					CAUSES.					
		Under 4 Weeks	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 9 Months	9 Months and under 12 Months	Not Preventable.			Preventable.		
							Premature Birth	Atrophy, Debility & Marasmus	Congenital Malformations and Atelectasis.	Diarrhoea and Enteritis	Bronchitis and Pneumonia	Measles and Whooping Cough
1909	123.6	47.9	26.1	20.9	14.8	13.9	21.7	17.4	7.0	20.9	13.1	6.0
1910	109.1	41.9	19.1	21.0	15.7	11.4	28.8	13.1	5.2	12.2	14.8	5.2
1911	145.0	45.0	27.0	27.0	25.2	20.8	18.0	12.6	4.5	37.9	26.1	11.7
1912	102.4	42.0	15.8	16.6	17.5	10.5	15.8	15.8	9.6	9.6	21.9	11.3
1913	127.1	49.8	17.2	27.5	19.0	13.7	28.4	12.9	6.0	19.0	18.0	3.4
1914	122.4	48.0	25.6	21.5	15.7	11.6	19.8	15.7	5.6	20.7	18.2	5.7
1915	144.3	51.2	30.2	26.8	14.3	21.8	30.2	12.6	5.9	15.9	20.1	17.6
1916	101.5	47.1	13.6	16.3	15.4	9.1	27.2	7.3	8.1	17.2	14.5	0.0
1917	106.5	39.4	16.1	23.3	15.2	12.7	20.6	7.2	10.8	24.2	10.7	4.4
1918	126.8	38.7	17.4	26.1	30.0	14.5	22.3	10.6	4.8	14.5	25.2	21.2
1919	107.9	45.9	17.8	18.8	13.1	12.3	19.7	22.5	9.4	13.1	20.6	3.7
1920	80.0	30.2	13.4	19.3	10.5	7.0	16.1	11.9	9.1	8.6	13.3	4.2
1921	105.3	38.2	17.5	23.7	16.8	9.1	11.4	17.5	9.1	22.1	13.7	2.2
1922	81.2	35.5	11.0	14.2	7.9	12.6	17.4	8.7	6.3	5.5	15.8	2.3
1923	82.9	39.7	11.0	7.6	14.3	10.1	29.6	5.0	6.7	7.6	11.8	8.4
1924	95.0	30.5	23.3	10.7	18.8	11.7	17.0	9.9	6.3	5.4	26.9	4.4
1925	78.4	37.3	15.3	3.8	9.6	12.4	26.8	4.8	9.6	6.7	15.3	3.8
1926	81.9	38.3	13.8	13.8	3.4	12.1	20.7	6.0	13.8	10.4	12.9	9.4
1927	68.4	24.1	6.8	13.5	14.4	9.6	8.7	1.9	12.5	7.7	24.1	0.9

Infant Mortality Rates for the various Wards, 1918-1927.

Year	Stanwix & Etterby	Rickergate	Aglionby	Greystone	St. Nicholas	Currock	Denton Holme	St. Outhbert's	Caldegate	Newtown & Belle Vue	Carlisle
1918	108.7	141.2	135.4	101.7	94.9	93.8	125.0	193.3	156.2	97.2	126.8
1919	81.6	97.8	123.3	83.9	125.0	65.4	160.6	119.0	115.1	65.8	107.9
1920	46.5	77.5	54.3	100.0	68.6	57.4	81.6	113.2	87.0	78.4	80.0
1921	23.8	150.7	91.7	174.6	86.9	62.0	105.2	62.5	158.4	56.8	105.3
1922	50.8	47.6	84.0	75.7	102.9	90.9	98.7	65.7	78.5	112.5	81.2
1923	163.2	79.6	64.0	82.6	77.5	44.9	73.0	64.1	141.0	107.6	82.9
1924	68.9	96.7	150.0	36.6	81.4	93.4	55.1	130.0	158.8	36.1	95.0
1925	85.1	70.1	66.6	90.9	78.2	37.3	101.5	59.3	97.0	92.7	78.4
1926	30.3	75.7	79.4	71.4	66.6	55.5	112.7	76.9	116.7	112.1	81.9
1927	45.4	72.0	108.1	51.2	102.0	66.6	41.6	54.0	79.1	61.8	68.4

Infant Mortality in Relation to the Mode of Feeding.

The following table shows the deaths of infants under one year in relation to the mode of feeding:—

MODE OF FEEDING.	Number so Fed.			Number of Deaths.			Mortality Rate per 1,000 so fed.
	Legitimate.	Illegitimate.	Total.	Legitimate.	Illegitimate.	Total.	
Breast	730	36	766	28	0	28	36.5
Partly Breast and partly Bottle ...	84	10	94	12	0	12	127.6*
Bottle—							
(1) Boat-shaped	115	19	134	14	3	17	126.8
(2) Tube bottle	0	0	0	0	0	0	0.0
Debilitated Infants—							
(1) Spoon-fed	5	0	5	5	0	5	1,000.0
(2) Unable to be fed	11	0	11	11	0	11	1,000.0
No information re feeding	16	0	16	8	0	8	500.0

Death-rates per 1,000 among infants under 1 year, classified according to the Method of Feeding,
1918-1927.

Mode of Feeding.	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	16 years.		
											Total No. of Children.	Total No. of Deaths.	Actual Mortality Rate.
Total infant mortality rate	126.8	107.9	80.0	105.3	81.2	82.9	95.0	78.4	81.9	68.4	18588	1871	100.6
Mortality rate for breast- fed infants ...	49.6	44.2	35.1	39.6	38.4	33.8	55.4	49.4	37.0	36.5	14420	639	44.3
Mortality rate for infants partly fed on breast and partly on bottle ...	122.2	378.4	171.7	407.7	152.0	141.7	181.2	155.3	116.3	127.6	1131	244	215.7
Mortality rate for infants fed by bottle ...	520.4	230.3	209.8	229.2	212.5	117.1	117.6	42.9	117.6	126.8	1977	581	293.8

Infant Mortality and Rainfall.

Year.	Rainfall in Inches.	Number of days on which rain fell.	Infant Mortality.
1909	33.13	162	123.6
1910	29.64	197	110.0
1911	30.20	181	145.0
1912	30.01	217	102.4
1913	27.53	194	127.1
1914	28.31	201	122.4
1915	28.28	183	144.3
1916	38.97	228	101.5
1917	29.13	176	106.5
1918	33.65	190	126.8
1919	25.21	191	107.9
1920	32.11	211	80.0
1921	29.83	205	105.3
1922	28.55	209	81.2
1923	36.53	231	82.9
1924	35.11	210	95.0
1925	32.17	189	78.4
1926	34.70	201	81.9
1927	37.38	204	68.4

Illegitimacy.

The number of illegitimate births registered was 63, or 60.7 per 1,000 registered births, being 1.2 per 1,000 greater than the figure for 1926. The number of deaths amongst these children was 3, or 47.6 per 1,000 illegitimate births. The deaths of legitimate children numbered 68, or 69.8 per 1,000 legitimate births. The Health Visitors paid 82 visits to children nursed or maintained by persons other than the parents.

Puerperal Fever and Puerperal Pyrexia.

10 notifications relating to puerperal pyrexia and 1 relating to puerperal fever were received, and 3 of these patients died. In one fatal case the child was hydrocephalic, and the labour long and delivery effected after craniotomy; in another case there was some hæmorrhage before delivery; while in the third fatal case in which the patient survived for one month, the only abnormality which could be ascertained was a very small perineal tear.

The 8 non-fatal cases appear to have been due to the following conditions:—1 influenzal pneumonia, 1 phlegmasia, 1 abortion, 1 instrumental labour with torn perineum, 1 case of malpresentation, and 3 other cases very slight in character, the cause being unknown. 1 case was treated in the Cumberland Infirmary, and 1 in Fusehill Institution Hospital.

Ophthalmia Neonatorum.

6 cases of ophthalmia neonatorum were notified by medical practitioners. The discharge was purulent in 5 instances, and in the remaining instance the child was found to have swelling and catarrh of the eyelids by the Health Visitor during her first visit, a mild case which developed late and cleared up quickly.

In 4 instances both eyes were affected, and in the remaining 2 cases only one eye was affected.

All of these children survived, and there was no permanent damage to the eyes in any instance.

In connection with these cases, the Health Visitors of the Corporation paid 23 special visits to affected babies in order to ensure arrangements for appropriate treatment.

In 1 case the child was referred to a specialist for treatment, and in 1 other instance the child was treated daily by the Nurses of the District Nursing Association under the direction of the doctor in attendance, while in the remaining 4 instances, which showed only slight symptoms, treatment was received at home under the direction of the medical practitioner in attendance.

CASES.			Vision un- impaired	Vision impaired	Total Blind- ness.	Deaths during treat- ment.	Remarks.
Noti- fied.	Treated.						
	At Home.	In Hos- pital.					
6	6	Nil.	6	Nil.	Nil.	Nil.	...

Infectious Diseases.

The Health Visitors paid 1,115 visits to cases of zymotic diseases, in addition to their visits to children suffering from gastro-enteritis, ophthalmia neonatorum, and pneumonia, and the cases of puerperal fever and puerperal pyrexia, the number of visits in this connection being nearly less than half those during 1926.

Poliomyelitis.

No notification relating to poliomyelitis was received during the year.

Deaths among Children aged 1—5 years.

34 deaths occurred among children aged 1—5 years from causes detailed hereunder:—

Diphtheria	...	...	...	2
Asthma	...	...	...	1
Bronchitis	...	...	...	1
Pneumonia and Broncho-pneumonia	...	...	...	15
Pulmonary Tuberculosis	...	...	...	1
Abdominal Tuberculosis	...	...	...	1
Tuberculous Meningitis	...	...	...	1
Gastro-enteritis	...	...	...	1
Meningitis	...	...	...	1
Valvular Disease of Heart	...	...	...	1
Appendicitis	...	...	...	1
Intussusception	...	...	...	1
Chickenpox	...	...	...	1
Congenital Malformation	...	...	...	1
Other Diseases	...	...	...	5
				—
				34
				—

As was also the case regarding deaths of children under one year old, the death-rate from respiratory diseases was very high during 1927, and the death-rate from zymotic diseases was very low.

HYGIENE OF PLACES OF PUBLIC ENTERTAINMENT.

The visits made in this connection will be found on pages 80 and 86.

REPORT OF THE VETERINARY INSPECTOR.

During the year 144 newly-purchased cows were examined in the byres of the City, amongst which the following conditions were found:—

Enlarged Udder	...	...	...	2
Indurated Udder	...	...	...	2
Septicæmia	...	...	...	2
Dullness of Lungs	...	..	...	1
Septic Mastitis	...	...	...	1
				—
				8
				—

All 8 animals were returned to the sellers.

During the year a total of 3,198 examinations of milk cows were made in order to ascertain the presence of disease likely to affect the milk supply, in the course of which 18 ailing animals were discovered, the conditions from which they were suffering being as follows:—

Septicæmia	...	...	...	6
Gastric Derangement	...	...	...	3
Milk Fever	...	...	...	2
Paralysis	...	...	...	2
Abscess in Throat	...	...	...	1
Septic Mastitis	...	...	...	1
Acute Mastitis	...	...	...	1
Acute Rheumatism	...	...	...	1
Chill	...	...	...	1
				—
				18
				—

4 of these animals died.

72,062 bovine animals exposed for sale at the Sands Cattle Market and the Auction Marts were examined.

123,326 sheep and 19,439 pigs were also examined at the Auction Marts.

Notice was received from the City Police of the death of a bullock in peculiar circumstances. I examined the dead animal and took samples of blood for microscopical examination, which gave negative results for Anthrax Bacilli.

Notice was also received of the death of a pig in peculiar circumstances. I made a post-mortem examination and found the cause of death to be acute pulmonary tuberculosis.

I examined a fat bullock which had dropped down dead on Scotland Road. The animal was removed to Miller's Knackery, where I made a post-mortem examination, and found the cause of death to be cerebral hæmorrhage.

On Friday, the 6th May, I was requested by the City Police to examine 4 cows at the L.M. & S. Cattle Dock, Denton Holme, which I found in an advanced condition of disease and suffering from tubercular emaciation. I discovered among the same consignment 8 other bovine animals also suffering from extensive disease. All 12 animals were slaughtered at the Public Slaughter-house, and were found to be affected with tuberculosis. In 9 instances the disease was in a very advanced condition. Proceedings were taken against the owner and his agent, each defendant being fined £14 and costs, the latter amounting to £61 12s. 3d.

At the request of the Chief Constable I examined 210 sheep which had been in contact with others affected with scab. I found them all to be free from disease.

Notice was received that a cow had died suddenly in one of the City byres. Microscopical examination of the blood gave negative results for anthrax bacilli.

Foot and Mouth Disease Order, 1927, No. 5.

On the 30th December the Ministry of Agriculture and Fisheries declared Cumberland and the adjoining counties to be a controlled area under the above Order. This Order, which remained in force until the 19th January, prohibited the sale of and prevented the movement of cattle, sheep, and swine, except under licence.

Tuberculosis Order, 1925.

11 cows have been dealt with under the above Order.

At the request of the Medical Officer of Health and Chief Sanitary Inspector I made post-mortem examinations at the Public Slaughter-houses on 2 carcasses of beef, which I certified to be unfit for human food.

Chief Inspector's Annual Report.

To the Chairman and Members of the Health Committee.

Ladies and Gentlemen,

I have the honour to submit my Annual Report upon the work of the Sanitary Inspectors during the year 1927.

HOUSING.

The number of houses inspected under and for the purposes of the Housing Act was 95. This figure includes 80 houses in King Street and the houses situated in the courts of that street.

The inspection of the King Street houses, which includes both sides of the street, shows that the 80 houses were occupied by 355 people, an average of 4.43 per house, or 1.44 per room, the density figure for the houses themselves being 72 to the acre.

The accommodation is made up as set out below, there being no one-roomed dwellings in this street:—

22	two-roomed houses
35	three-roomed houses
19	four-roomed houses
3	five-roomed houses
1	six-roomed house

80

Following upon this inspection 109 notices were served under the provisions of Section 3 of the Housing Act, 1925, and 4 notices were also served under the provisions of Section 36 of the Public Health Act, 1875.

The remaining 15 inspections included 5 houses at South Henry Street, 4 at Scotland Road, and 6 at Blue Bell Lane, Rickergate. The works at the houses in South Henry Street were carried out by the owner without delay, and at Scotland Road notices under the Public Health Acts were served and the works executed. In connection with the block of 6 very insanitary dwellings in Blue Bell Lane, Rickergate, Closing Orders were served upon the owners, who demolished the property.

4 houses in Byron Street were closed by the owner for the purpose of providing garage extensions. 1 house in Scott Street and 1 in Burns Street were also closed by the owners and used for extension of business premises. 4 houses in Dudson's Court, Rickergate, were also closed.

10 houses were demolished by the Corporation in Blackfriars Street in connection with a street improvement scheme.

NUISANCES AND DRAINAGE.

The number of nuisances investigated during the year was 663, of which 80 were in respect of complaints received, the remainder coming to the knowledge of the Inspectors during their visits.

283 notices were served, and at the end of the year 7 matters were still on the books.

The number of new drains laid was 115, and 8 were repaired under the supervision of your Inspectors. The number of drains tested was 109.

A total of 938 inspections was made.

CONVERSION TO WATER CARRIAGE SYSTEM.

As a result of action taken new water-closets were erected and middens abolished at Hassell Street, Thorney Flatt, and Scotland Road. The number of new water-closets erected in substitution for the dry system was 22.

VAN DWELLINGS.

Vans congregated at the Sands received frequent visits, more particularly at Fair times. Apart from the misuse of the adjacent ground by the occupiers, no serious fault was found.

COMMON LODGING-HOUSES.

There is no registered common lodging-house in the City. There is, however, in existence a well-appointed lodging-house where men only are received, which is owned and controlled by the Corporation and known as Lowther House.

STABLE PREMISES.

Certain stable premises at Dalston Road were improved during the year by the paving of the yard and the erection of a manure midden at a satisfactory distance from dwelling-houses.

There were 187 inspections to stable premises, the number of stables being approximately 120. A number of notices to remove accumulations of stable manure were served with satisfactory results.

FACTORIES AND WORKSHOPS.

The entries in the Register of Factories and Workshops show a total of 279 workshops, including 17 "domestic" workshops and 74 bakehouses (3 of which are underground). The factories number approximately 90. A total of 611 visits were paid to these premises during the year.

3 bakehouses have been considerably improved structurally, and in 1 instance a very desirable addition has been made, viz., the provision of washing and dressing accommodation.

9 notices were received from H.M. Inspector of Factories relating to nuisances remediable under the Public Health Acts. These nuisances were remedied and the Factory Inspector notified of the action taken by this Authority.

New premises have been erected for use in connection with the preparation of made-up meat goods, and in another instance the premises have been improved. In 1 instance where the premises were very unsatisfactory for this purpose they were closed.

The laundry connected with one of the large hotels was much improved by its removal to new premises and the installation of modern machinery.

SMOKE NUISANCES.

No serious complaint was made respecting smoke nuisances from factory chimneys, with the exception of the recurring nuisance at Kingmoor engine sheds. Two

letters were addressed to the L.M. & S. Railway Co., Glasgow, concerning this nuisance, but it is still, more or less, prevalent. 1 additional boiler was fixed in the premises previously mentioned, which it is hoped may have the effect of reducing the smoke annoyance from the chimney.

INSPECTION OF MEAT AND OTHER FOODS,

The amount of meat at the Public Slaughter-houses and elsewhere declared to be unfit for human food was 26 tons 12 cwt. 3 qrs. 21 lbs. In addition certain tinned meat was surrendered as unfit for food.

Magistrate's Orders were secured in order to condemn a small portion of the meat, but no legal proceedings were instituted.

SLAUGHTER-HOUSES.

The only private slaughter-houses in the City, three in number, are licensed, in two cases for the special purpose of slaughtering sheep for the London and other markets, and in the other instance for the slaughter of pigs at a bacon factory.

The Public Slaughter-houses, owned by the Local Authority, and under the control of the Public Health Department, have been kept satisfactorily. A table showing the number and nature of the animals killed is given on page 82.

623 inspections were made to these slaughter-houses.

DAIRIES, COWSHEDS, AND MILKSHOPS.

There are 18 registered producers of milk in the City, and 32 cowsheds are in use. The visits to cowsheds numbered 192.

There are 64 purveyors of milk on the register, 30 of whom reside in the City, and in addition there are 16 milkshops.

1 cowshed was improved by re-roofing, the provision of new drains, and the paving of the farmyard.

In addition to 91 routine inspections, all the cow-sheds were specially inspected for the purposes of the Milk and Dairies Order, 1926, and defects recorded with a view of any necessary action being taken, and all the places of production have since been seen by the members of the Public Health Committee.

FRIED FISH AND POTATO SHOPS.

The number of shops of this class remains the same, 34, and we have received no complaint respecting the conduct of the trade. 277 inspections were made.

ICE CREAM SHOPS.

The summer of 1927 was not conducive to extensive trade in ice-cream, but 35 visits were paid to the premises of the 18 retailers, and the conditions existing were considered to be satisfactory in each instance.

FOOD AND DRUGS ACTS.

Full particulars of the nature of the 172 samples taken and the results of the analyses will be found tabulated on page 81.

No legal proceedings were considered necessary in connection with 10 samples which were found to be adulterated, but the vendors were cautioned.

OFFENSIVE TRADES.

The number and description of the offensive trades or offensive businesses is reduced from 5 to 3, viz., 1 tripe boiler, 1 gut scraper, and 1 fellmonger.

Premises are licensed in one instance as a depot for the reception of hides, etc., under the Public Health Acts Amendment Act, 1907.

Premises used as a tripery in Devonshire Walk were greatly improved as a result of alterations carried out,

which included raising of the roof, rendering of walls, resetting of boilers, and the heightening of a chimney.

URINALS.

The public urinals in the City, 20 in number, including the underground lavatories, are cleansed under the supervision of this Department. During the year 2 urinals were demolished and re-built.

REFUSE REMOVAL.

The removal of house and trade refuse has been carried on as in previous years, *i.e.*, trade refuse from the central district daily, and other districts twice or thrice weekly, according to requirements of the district. The whole of the refuse is disposed of by tipping at various tips.

During the year 22,100 loads of refuse were disposed of and 495 loads of garbage from the Slaughter-houses were also tipped.

Two new S.D. Freighters were purchased early in the year and the old one re-conditioned, making a fleet of 3. These Freighters continue to give very satisfactory service.

DEPOT.

In connection with the work of refuse removal and scavenging, there are 13 horses kept at the Depot, compared with 20 in 1926.

During the year 1 horse was bought, 1 died, and 6 others were sold.

The 3 Freighters are also garaged at the Depot.

SHOPS ACTS.

In connection with the administration of these Acts 857 day and evening inspections were made. No legal proceedings were taken, but verbal cautions, respecting small breaches of the Act, were given in a few instances.

INFECTIOUS DISEASE AND DISINFECTION.

165 cases of infectious disease were investigated during the year, and 93 of these were removed to Hospital. The number and description of articles of bed clothing, etc., disinfected are given on page 82.

RAT REPRESSION.

In consequence of complaints respecting rats on premises, 27 visits were made, and in some instances the drains tested and advice given.

1858 rats were received at the Depot during the year, for which 2d. per head was paid.

HYGIENE OF PLACES OF PUBLIC ENTERTAINMENT.

Frequent inspections were made to Picture Halls, particularly with regard to the maintenance of ventilation and the sanitation.

No complaint was received respecting these places, but the attention of the management of one of the Picture Houses had to be drawn to the failure to properly ventilate and admit sunlight to the Picture House during the morning.

DISEASED AND UNSOUND FOOD.

The following table shows the amount of food seized or surrendered as being unfit for human consumption:—

Nature of Food Condemned,					Quantity.			
					Tons.	Cwts.	Qrs.	Lbs.
Beef	...	...	...	..	23	6	0	21
Mutton	...	...	...	..	1	9	3	4
Pork	..	...	...	..	1	4	4	20
Veal	...	...	...	..	0	11	3	4
Total ..					26	12	3	21
Tinned Meats	..	...	...	..	12 lbs.			
Poultry	...	...	...	..	70	..		

SALE OF FOOD AND DRUGS ACTS.

Table showing articles purchased during the year, with results of analyses and remarks as to action taken thereon.

Article.	No. of Samples.	No. found to be Genuine.	Number Adulterated.	Extent and Form of Adulteration.	Remarks.
Milk ...	60	54	6	<i>a.</i> Milk fat 3% below limit <i>b.</i> Milk fat 6% below limit <i>c.</i> Milk fat 3% below limit <i>d.</i> Milk fat 16% below limit <i>e.</i> Milk fat 10·67% below limit <i>f.</i> Non-fatty solids 4% below limit	All Vendors cautioned.
Butter ...	21	21	Vendor cautioned re labelling.
Cream ..	4	3	1	Contained ·066% Boric Acid	
Coffee ...	11	11	...	...
Olive Oil ...	1	1	...	...
Minerals ...	4	4	...	...
Jams ...	9	9	...	...
Pepper ...	9	9	Vendor cautioned.
Cones ...	1	1	...	...
Sausages ...	13	12	1	Contained ·12% Boric Acid	
Bi-carb. Soda	4	4	...	...
Custard Powder	8	8	..	...
Lard ...	16	16	...	...
Ginger Cordial	3	3	Vendors cautioned.
Orange Cordial	1	1	...	...
Whisky ...	6	4	2	<i>a</i> 36·14° Underproof <i>b</i> 37·40° Underproof	
Sausage Preservative	1	1	..	...
No. of Samples	172				
No. Genuine	...	162			
No. Adulterated	10		

The following Tables give the number of animals killed annually during the past five years:—

PUBLIC ABATTOIR.

Year.	Beasts.	Sheep and Lambs.	Calves.	Pigs.	Total.
1923	4,028	13,249	768	4,644	22,689
1924	4,106	14,385	436	5,896	24,823
1925	4,343	13,814	372	5,775	24,404
1926	4,478	14,889	285	4,712	24,364
1927	4,454	16,984	193	5,548	27,179

L.M. & S. RAILWAY SLAUGHTER-HOUSE.

1923	...	26,121	...	...	26,121
1924	...	39,427	...	...	39,427
1925	...	48,279	...	...	48,279
1926	...	46,745	...	...	46,745
1927	...	69,939	...	...	69,939

L. & N.E. RAILWAY SLAUGHTER-HOUSE.

1923	...	39,897	...	...	39,897
1924	...	64,811	...	...	64,811
1925	...	79,906	...	...	79,906
1926	...	72,232	...	...	72,232
1927	...	88,807	...	...	88,807

HARRABY BACON FACTORY.

1926	..	...	...	248	248
1927	..	..	...	338	338

REFUSE REMOVAL.

Number of Loads of House Refuse removed to Tips	...	22,100
,, Loads of Slaughter-house Garbage	...	495

DISINFECTION.

Number of cases of Infectious Diseases Investigated	...	165
,, Cases of Infectious Disease removed to Hospital	...	93
,, Mattresses and Beds Disinfected	...	49
,, Bolsters and Covers	,,	20
,, Pillows and Covers	,,	141
,, Blankets	,,	163
,, Quilts	,,	26
,, Miscellaneous Articles	,,	149
,, Carpets, &c., Disinfected	...	14
,, Rooms Disinfected	...	244

FACTORIES, WORKSHOPS, WORKPLACES, AND HOMEWORK.

1.—Inspection of Factories, Workshops, & Workplaces.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
FACTORIES	21	4	Nil
WORKSHOPS	590	2	Nil
WORKPLACES ... (Other than Outworkers' premises included in Part 3 of this Report)			
TOTAL	611	6	Nil

3.—Home Work.

NATURE OF WORK.	OUTWORKERS' LISTS, SECTION 107.					
	Lists received from Employers.					
	Sending twice in the year.			Sending once in the year.		
	Lists.	Outworkers.		Lists.	Outworkers.	
		Con- tractors.	Work- men.		Con- tractors.	Work- men.
Wearing apparel—						
Making, &c. ...	2	...	...	1	...	..
Cleaning and						
Washing ...	...	..	...	...	..	..
Total ..	2	...	...	1	...	...

2.—Defects found in Factories, Workshops, and Workplaces.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :—</i>				
Want of cleanliness	17	17	...	...
Want of ventilation	1	1	...	..
Overcrowding... ..	...	...	...	...
Want of drainage of floors ...	...	...	...	...
Other nuisances	4	4	..	...
Sanitary accommodation :—				
{ Insufficient ... ..	...	...	...	...
{ Unsuitable or defective	4	4	...	...
{ Not separate for sexes	...	...	...	...
<i>Offences under the Factory and Workshop Acts :—</i>				
Illegal occupation of underground bakehouse (s. 101)...	...	..	...	..
Breach of special sanitary requirements for bakehouses (ss. 97 to 100) ... ..	...	...	...	...
Other offences (Excluding offences relating to outwork, which are included in Part 3 of this report)	...	...	...	...
Total	26	26	Nil	Ni

4.—Registered Workshops.

Workshops on the Register (s. 131) at the end of the year		Number.
Important classes of workshops, such as workshop bakehouses, may be enumerated here.	Workshops	134
	Domestic Workshops ...	71
	Bakehouses	74
	Total number of workshops on Register ...	279

5.—Other Matters.

Class.	Number.
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Acts (s. 133, 1901) ... ..	..
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory & Workshop Acts (s. 5, 1901) :	
Notified by H.M. Inspector	9
Reports (of action taken) sent to H.M. Inspector	9
Other ... ..	...
Underground Bakehouses (s. 101) —	
In use at the end of the year	3

6.—Classified List of Workshops.

Business.	No.	Business.	No.
Millinery	17	Fishing Tackle	2
Tailoring	30	Stocking Knitting... ..	1
Sugar Boiling	2	Scale Repairers	2
Cycle Repairing	9	Picture Framing	2
Dressmaking	18	Photography	4
Bakehouses	74	Tripe Boiling	1
Boot Repairing, Cloggers ...	43	Chocolate Making	1
Saddlery	5	Marine Dealers	3
Meat Preparation	28	Gut Scraper	1
Watch Makers, Jewellers ...	16	Fellmonger	1
Upholstering	4	Sewing Machine Repairer	1
Coopers	2	Engraver	1
Basket Making	2	Wagon Sheet Repairer ...	1
Umbrella Repairing	1	Firewood Dealers	2
Taxidermist	1		
Tinsmiths	2		
Hand-weavers	2	Total	279

SUMMARY OF SANITARY WORK PERFORMED IN CONNECTION WITH INSPECTION OF DISTRICT.

Nature of Inspections.	Number of visits paid.
HOUSES—	
Houses inspected under Housing Acts ...	819
Houses inspected in accordance with the Housing (Consolidated) Regulations, 1925 ...	95
Houses inspected under the Public Health Act, 1875 ...	2913
Visits <i>re</i> Infectious Diseases ...	534
Drains Inspected ...	938
,, Tested ...	109
Common Yards, Courts, & Alleys inspected ...	7269
Temporary or movable dwellings inspected ...	174
Public Halls, Schools, etc....	21
Complaints investigated ...	80
Nuisances investigated ...	663
TRADE PREMISES—	
Bakehouses ...	176
Laundries ...	3
Cowsheds ...	192
Milkshops ...	91
Ice-Cream Shops ...	35
Fried Fish Shops ...	277
Meat Preparation Premises ...	169
Slaughter-houses ...	623
Markets ...	169
Factories ...	21
Workshops and Workplaces ...	245
Stables ...	187
Shops Act Inspections ...	857
Chimneys observed (smoke nuisances) ...	17
Refuse Tips ...	94
Water samples taken for analysis ...	8
Visits <i>re</i> Rats and Mice Destruction Order ...	27
Miscellaneous inspections ...	1735
Urinals ...	21
Notices served to abate Nuisances ..	283
,, complied with ...	276

HOUSING WORKS DONE BY NOTICES UNDER THE PUBLIC HEALTH ACTS.

Walls, Damp and Defective, Remedied	...	...	12
Roofs Repaired	...	...	69
Yards Paved and Repaired	...	...	10
Ceilings Repaired	...	...	5
Firegrates and Ovens Repaired	...	...	15
Chimney Stacks Repaired	...	...	9
Floors Repaired	...	...	3
Defective Outbuildings Repaired	...	...	14
Slopsinks Provided	...	...	3
Houses provided with new W.C.s.	...	...	21

Housing Works done without Notice.

Houses provided with New Damp Courses	...	...	5
do. do. New Roofs	...	...	4
do. do. New Floors	...	...	2
Houses cement rendered or plastered	...	...	12
House provided with new W.C.s.	...	...	1
Yards Concreted	...	...	20
New Washhouse	...	...	1
Walls Repaired	...	...	4
Ceilings Repaired	...	...	5
Stairs Repaired	...	...	4
Floors Repaired	...	...	5
Windows Repaired	...	...	5

I have the honour to be,

Your obedient Servant,

C. W. HILL,

Chief Inspector.



